HCD-VR50/VR70

SERVICE MANUAL

E Model

HCD-VR50/VR70 is the tuner, deck, CD and amplifier section in LBT-VR50/VR70.

Photo: HCD-VR50

This stereo system is equipped with the Dolby* B-type noise reduction system.
* Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
"DOLBY" and the double-D symbol ⊡⊡ are trademarks of the Dolby Laboratories Licensing Corporation.

CD SECTION	Model Name Using Similar Mechanism	HCD-DR7AV/XB800AV
	CD Mechanism Type	CDM37L-5BD34L
	Base Unit Type	BU-5BD34L
	Optical Pick-up Type	KSS-213D/Q-NP
TAPE DECK SECTION	Model Name Using Similar Mechanism	HCD-DR7AV/XB800AV
	Tape Transport Mechanism Type	TCM-230AWR2/230PWR2

SPECIFICATIONS

Amplifier section

The following measured at AC 120/220/240 V, 50/60 Hz;

HCD-VR70

DIN power output (Rated)
160 + 160 watts
(6 ohms at 1 kHz, DIN)
Continuous RMS power output (Reference)
200 + 200 watts
(6 ohms at 1 kHz, 10% THD)

HCD-VR50

DIN power output (Rated)
140 + 140 watts
(6 ohms at 1 kHz, DIN)
Continuous RMS power output (Reference)
170 + 170 watts
(6 ohms at 1 kHz, 10% THD)

Inputs
PHONO IN (phono jacks): sensitivity 3 mV, impedance 47 kilohms
MIC 1/2 (phone jack): sensitivity 1 mV, impedance 10 kilohms
VIDEO1 IN (phono jacks): sensitivity 250 mV, impedance 47 kilohms
VIDEO2 IN (phono jacks): sensitivity 250 mV, impedance 47 kilohms
MD IN (phono jacks): sensitivity 450 mV, impedance 47 kilohms

Outputs
PHONES (stereo phone jack): accepts headphones of 8 ohms or more
VIDEO OUT (phono jack): voltage 250 mV, impedance 1 kilohm
MD OUT (phono jacks): voltage 250 mV, impedance 1 kilohm
FRONT SPEAKER: accepts impedance of 6 to 16 ohms

Video section

Inputs
VIDEO1 IN (phono jacks): 1 V p-p, 75 ohms
VIDEO2 IN (phono jacks): 1 V p-p, 75 ohms

Outputs
VIDEO OUT (phono jack): 1 V p-p, 75 ohms
S-VIDEO OUT (4-pin/mini-DIN jack): Y: 1 V p-p, unbalanced, Sync negative, C: 0.286 V p-p, load impedance 75 ohms

VIDEO CD/CD player section

System: Compact disc and digital audio and video system
Laser: Semiconductor laser (λ = 780 nm)
Emission duration: continuous
Laser output: Max. 44.6 μW*
* This output is the value measured at a distance of 200 mm from the objective lens surface on the Optical Pick-up Block with 7 mm aperture.
Wavelength: 780 – 790 nm
Frequency response: 2 Hz – 20 kHz (±0.5 dB)
Signal-to-noise ratio: More than 90 dB
Dynamic range: More than 90 dB
Video color system format: NTSC, PAL

CD DIGITAL OUT
(square optical connector jack, rear panel)
Wave length: 660 nm
Output level: –18 dBm

— Continued on next page —

COMPACT DISC DECK RECEIVER

MICROFILM

SONY®

Tape player section

Recording system	4-track 2-channel stereo
Frequency response (DOLBY NR OFF)	
	40 – 13,000 Hz (±3 dB), using a Sony TYPE I cassette
	40 – 14,000 Hz (±3 dB), using a Sony TYPE II cassette

Tuner section

FM stereo, FM/AM superheterodyne tuner

FM tuner section

Tuning range	87.5 – 108.0 MHz (50 kHz step)
Antenna	FM wire antenna
Antenna terminals	75 ohm unbalanced
Intermediate frequency	10.7 MHz

AM tuner section

Tuning range	
Middle Eastern model:	531 – 1,602 kHz (with the tuning interval set at 9 kHz)
Other models:	531 – 1,602 kHz (with the tuning interval set at 9 kHz) 530 – 1,710 kHz (with the tuning interval set at 10 kHz)
Antenna	AM loop antenna, External antenna terminals
Intermediate frequency	450 kHz

General

Power requirements	120 V, 220 V, or 230 – 240 V AC, 50/60 Hz Adjustable with voltage selector
Power consumption	
HCD-VR70:	220 watts
HCD-VR50:	200 watts
Dimensions (w/h/d)	Approx. 356 × 423 × 446 mm incl. projecting parts and controls
Mass	
HCD-VR70:	Approx. 14.0 kg
HCD-VR50:	Approx. 13.5 kg

Design and specifications are subject to change without notice.

CAUTION
Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

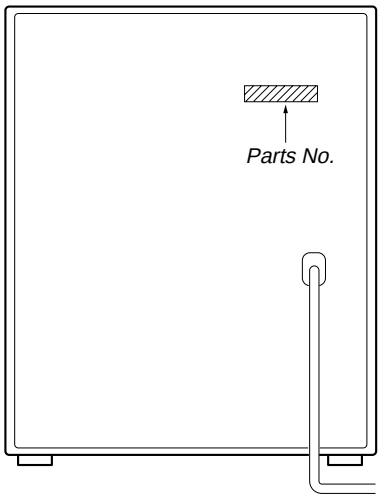
Flexible Circuit Board Repairing

- Keep the temperature of soldering iron around 270˚C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

Laser component in this product is capable of emitting radiation exceeding the limit for Class 1.

This appliance is classified as a CLASS 1 LASER product. The CLASS 1 LASER PRODUCT MARKING is located on the rear exterior.

MODEL IDENTIFICATION — BACK PANEL —



- Abbreviation
  MY : Malaysia model
  SP : Singapore model
  IA : Indonesia model
  EA : Saudi Arabia model

PARTS NO.	MODEL
4-214-791-0☐	VR50: MY, SP
4-214-791-1☐	VR50: EA
4-214-792-0☐	VR70: MY, SP
4-214-792-1☐	VR70: IA

SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

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NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic break-down because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.
During repair, pay attention to electrostatic break-down and also use the procedure in the printed matter which is included in the repair parts.
The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

LASER DIODE AND FOCUS SEARCH OPERATION CHECK

Carry out the "S curve check" in "CD section adjustment" and check that the S curve waveform is output four times.

SECTION 1
SERVICING NOTE

About CD-TEXT display

This unit is provided with a simple CD-TEXT display function.
The CD-TEXT contents of 20 tracks are displayed on the fluorescent display tube.
Since the function is simple, some special characters may not be displayed, or may be displayed as other characters.

MC Cold Reset

• The cold reset clears all data including preset data stored in the RAM to initial conditions. Execute this mode when returning the set to the customer.

Procedure:

1. Press three buttons [⏲/CLOCK SET], [ENTER], and [I/⏻] simultaneously.
2. "COLD RESET" is displayed on the fluorescent display tube and reset is executed.

CD Delivery Mode

• This mode moves the pick-up to the position durable to vibration. Use this mode when returning the set to the customer after repair.

Procedure:

1. Press [I/⏻] button to turn the set ON.
2. Press [LOOP] button and [I/⏻] button simultaneously.
3. A message "LOCK" is displayed on the fluorescent indicator tube, and the CD delivery mode is set.

MC Hot Reset

• This mode resets the set with the preset data kept stored in the memory. The hot reset mode functions same as if the power cord is plugged in and out.

Procedure:

1. Press three buttons [⏲/CLOCK SET], [ENTER], and [DISC 1] simultaneously.
2. The fluorescent indicator tube becomes blank instantaneously, and the set is reset.

Sled Servo Mode

• This mode can run the CD sled motor freely. Use this mode, for instance, when cleaning the optical pick-up.

Procedure:

1. Press [I/⏻] button to turn the set ON.
2. Press three buttons [⏲/CLOCK SET], [ENTER], and [DISC 5] simultaneously.
3. The Sled Servo mode is selected, if "CD" is blanking on the fluorescent indicator tube.
4. With the CD in stop status, When the [►►] button is pressed, the optical pick-up moves outside. When [◄◄] button is pressed, it moves inside.
5. To exit from this mode, perform as follows:
   1) Move the optical pick-up to the most inside track.
   2) Execute MC cold reset. (Press the three buttons [⏲/CLOCK SET], [ENTER], and [I/⏻] button simultaneously.)

Note:

• Always move the optical pick-up to most inside track when exiting from this mode. Otherwise, a disc will not be unloaded.
• Do not run the sled motor excessively, otherwise the gear can be chipped.

Change-over of AM Tuner Step between 9kHz and 10kHz

• A step of AM channels can be changed over between 9kHz and 10kHz.

Procedure:

1. Press [I/⏻] button to turn the set ON.
2. Select the function "TUNER", and press [TUNER/BAND] button to select the BAND "AM".
3. Press [I/⏻] button to turn the set OFF.
4. Press [ENTER] and [I/⏻] buttons simultaneously, and the display of fluorescent indicator tube changes to "AM 9k STEP" or "AM 10k STEP", and thus the channel step is changed over.

LED and Fluorescent Indicator Tube All Lit, Key Check Mode

Procedure:

1. Press three buttons [⏲/CLOCK SET], [ENTER], and [DISC 2] simultaneously.
2. LEDs and fluorescent indicator tube are all turned on.
   Press [DISC 2] button, and the key check mode is activated.
3. In the key check mode, the fluorescent indicator tube displays "K @ V0 J0". Each time a button is pressed, "K"value increases. However, once a button is pressed, it is no longer taken into account.
   "J" Value increases like 1, 2, 3 ... if rotating [I◄◄ AMS ►►I] knob in "+" direction, or it decreases like 0, 9, 8 ... if rotating in "-" direction.
   "V" Value increases like 1, 2, 3 ... if rotating [VOLUME] knob in "+" direction, or it decreases like 0, 9, 8 ... if rotating in "-" direction.
4. To exit from this mode, press three buttons in the same manner as step 1, or disconnect the power cord.

AMS Test Mode

• This mode is used for checking the AMS operations of the tape deck.

JIG

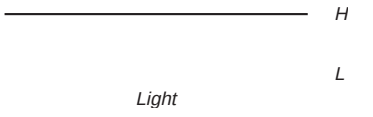
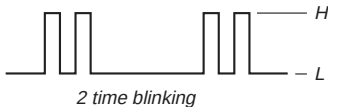
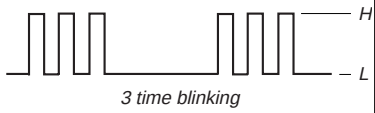
7-819-039-12 Alignment tape, AMS-110A

Procedure:

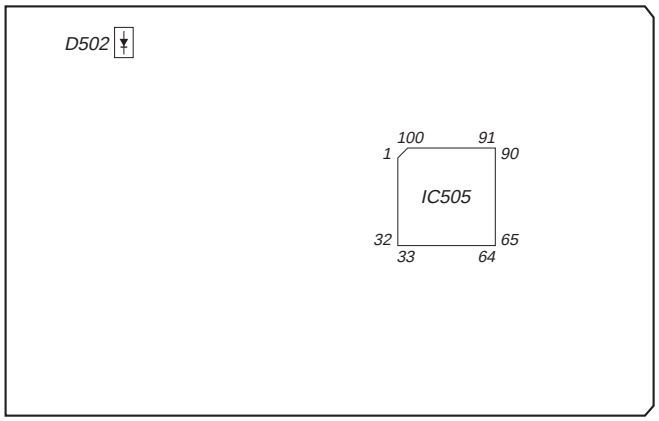
1. Press the I/⏻ button to turn the set ON.
2. Set the tape (AMS-110A).
3. Press the three buttons ⏲/CLOCK SET, ENTER, and DISC 3 button simultaneously.
4. "TEST MODE" is displayed on the fluorescent display tube.
5. Press the FUNCTION button and switch the function to the deck with the tape (AMS-110A).
6. Press the CD SYNCHRO button. "AMS CHECK" is displayed on the fluorescent display tube and the tape is rewound.
7. AMS starts in the normal direction. If the AMS count is 2 at shut down, proceed to step 8.
   "NG" is displayed at other times, and the deck stops.
8. AMS starts in the opposite direction. If the AMS count is 2 at shut down again, "OK" is displayed.
   "NG" is displayed at other times.

SELF-DIAGNOSIS

This model has the self-diagnosis function for the VIDEO and AUDIO decoder sections.
Immediately after the power on, the self-diagnosis function searches each operation of IC's around the mechanism control microcomputer (IC701).
The results can be checked by D502 of the VIDEO board.

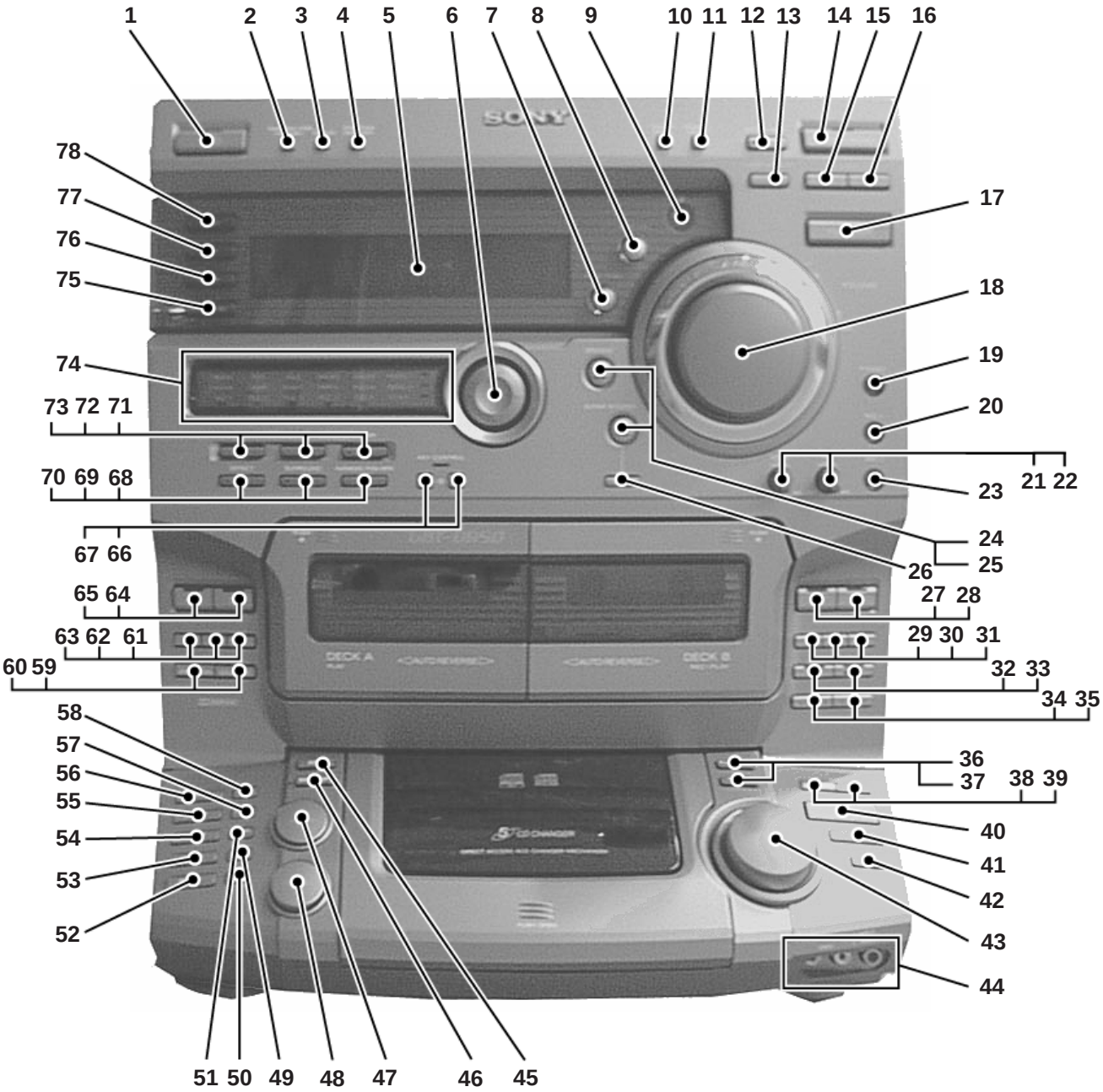
Oscilloscope (Waveform)	Symptom
	No error
	MPEG decoder (IC505) error
	MPEG decoder (IC505) or DRAM (IC507) error

[VIDEO BOARD] (SIDE A)



SECTION 2
GENERAL

Front Panel



LOCATION OF PARTS AND CONTROLS

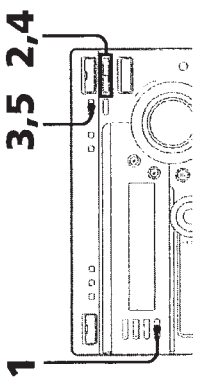
1 I/⏻ (Power) button and indicator
2 POWER SAVE/DEMO (STANDBY) button
3 DISPLAY button
4 SPECTRUM ANALYZER button
5 Display window
6 GEQ control button
7 SYNC BASS button
8 SYNC EQ button
9 Remote sensor
10 TUNING MODE button
11 STEREO/MONO button
12 ENTER/NEXT button and indicator
13 TUNER MEMORY button
14 TUNER/BAND button and indicator
15 TUNING - button
16 TUNING + button
17 FUNCTION button
18 VOLUME knob
19 PHONES jack
20 MIC 1 jack
21 ECHO LEVEL knob
22 MIC LEVEL knob
23 MIC 2 jack
24 GROOVE button and indicator
25 SUPER WOOFER button and indicator
26 MODE button
27 ◁ (B Deck) button and indicator
28 ▷ (B Deck) button and indicator
29 ■ (B Deck) button
30 ◀◀ (B Deck) button
31 ▶▶ (B Deck) button
32 ❚❚ (B Deck) button and indicator
33 ● REC (B Deck) button and indicator
34 HI-SPEED DUB button
35 CD SYNCHRO button
36 PLAY MODE button
37 REPEAT button
38 ◀◀ (CD) button
39 ▶▶ (CD) button
40 ▷❚❚ (CD) button and indicator
41 ■ (CD) button
42 DISK SKIP button
43 I◀◀ AMS ▶▶I knob
44 VIDEO2 INPUT jacks
45 EDIT button
46 NON-STOP button and indicator
47 LOOP button
48 FLASH button
49 PREV button
50 NEXT button
51 RETURN button
52 DISC 5 button
53 DISC 4 button
54 DISC 3 button
55 DISC 2 button
56 DISC 1 button
57 SELECT button
58 ACTIVE button
59 DOLBY NR button
60 DIRECTION button
61 ▶▶ (A Deck) button
62 ◀◀ (A Deck) button
63 ■ (A Deck) button
64 ▷ (A Deck) button and indicator
65 ◁ (A Deck) button and indicator
66 KEY CONTROL ♯ button and indicator
67 KEY CONTROL ♭ button and indicator
68 KARAOKE PON/MPX button
69 SURROUND button and indicator
70 EFFECT button and indicator
71 ENTER button and indicator
72 GEQ CONTROL button
73 P. FILE MEMORY button
74 Equalizer indicators
75 ◴/CLOCK SET button
76 SLEEP button
77 REC button and indicator
78 DAILY button and indicator

• AMS is the abbreviation for Automatic Music Sensor.

This section is extracted from instruction manual.

Step 2: Setting the time

You must set the time before using the timer functions.



1 Press ◴/CLOCK SET.
The hour indication flashes.

2 Press TUNING +/– to set the hour.

3 Press ENTER/NEXT.
The minutes indication flashes.

4 Press TUNING +/– to set the minutes.

5 Press ENTER/NEXT.
The clock starts.

Tip

If you make a mistake, start over from step 1.

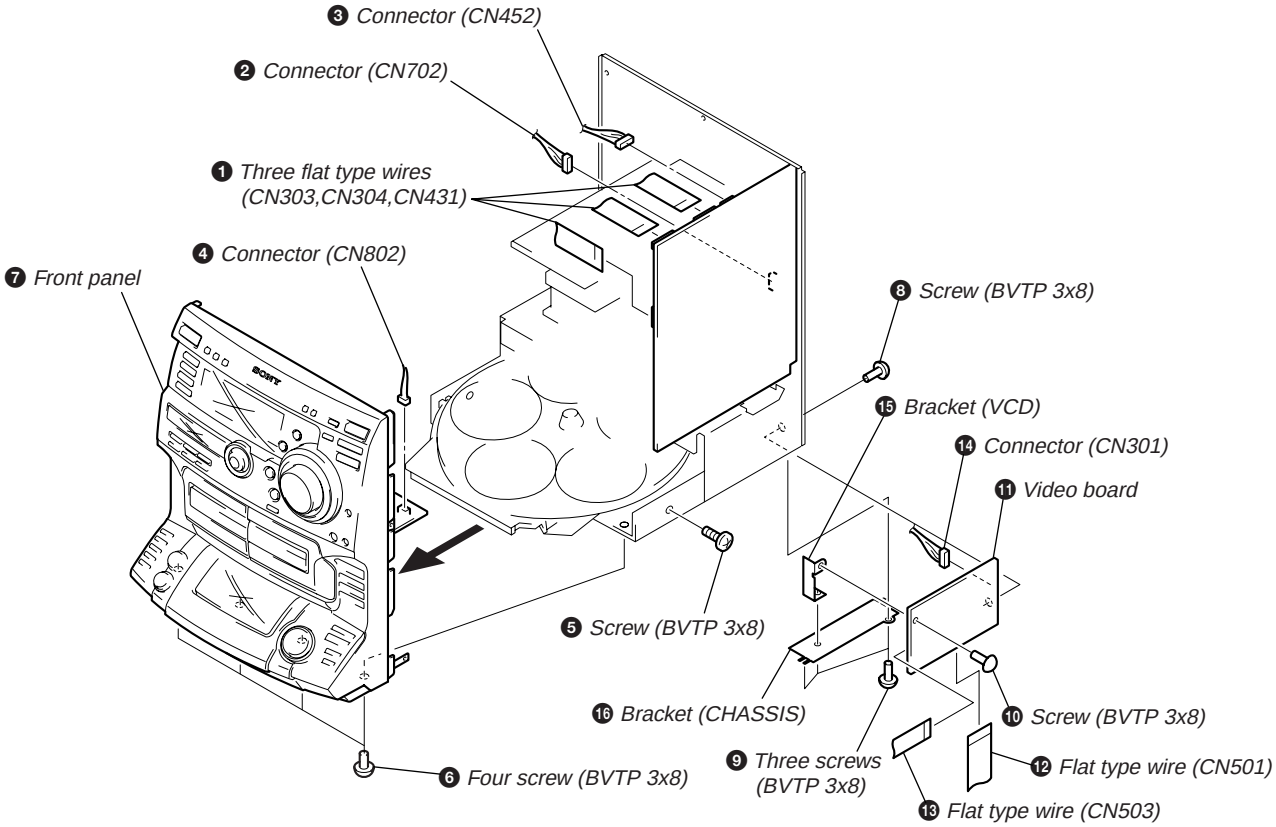
Note

The clock setting is canceled when you disconnect the power cord or if a power failure occurs.

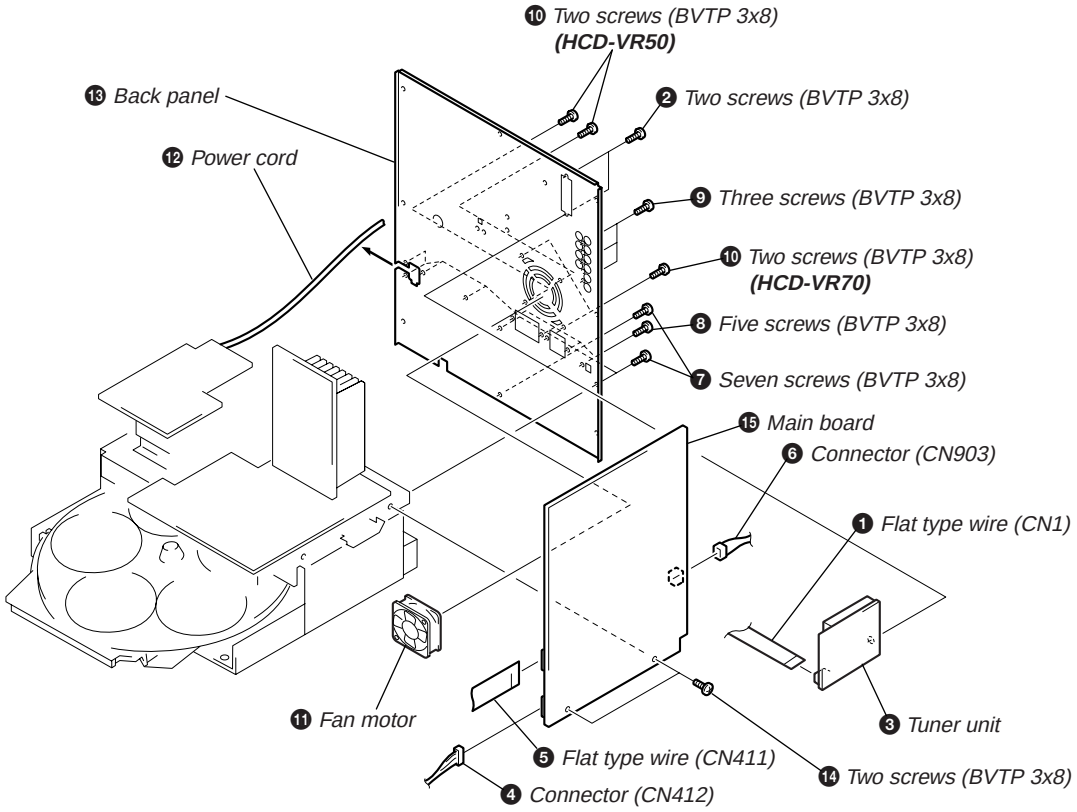
SECTION 3
DISASSEMBLY

Note: Follow the disassembly procedure in the numerical order given.

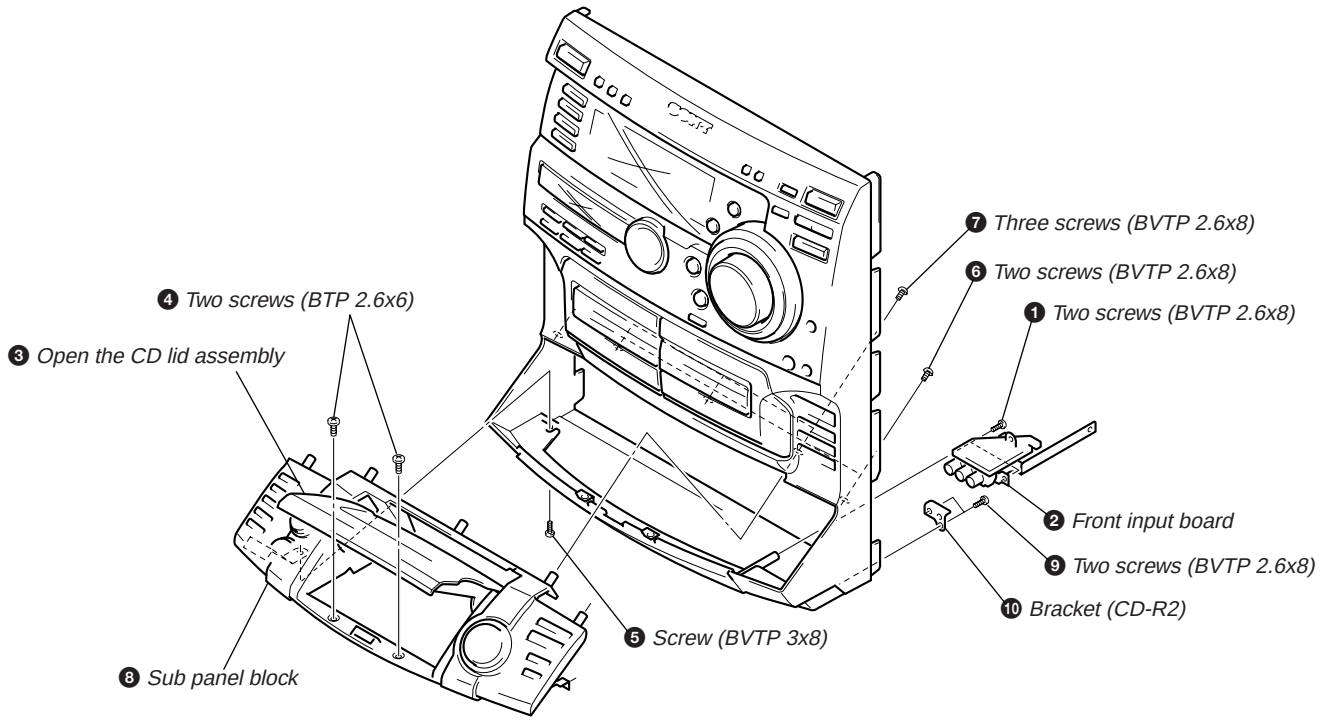
3-1. FRONT PANEL



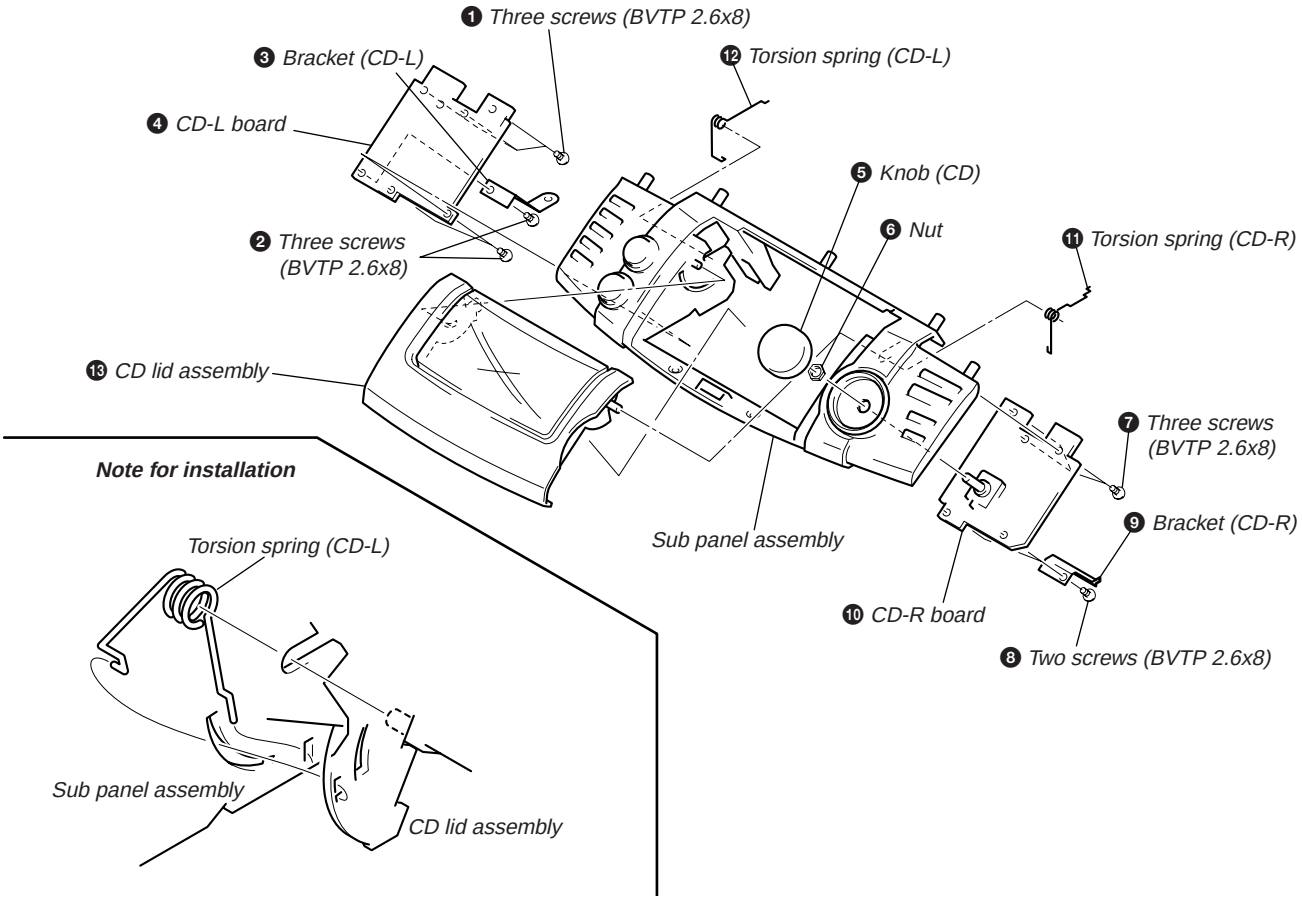
3-2. MAIN BOARD


❿ Two screws (BVTP 3x8) (HCD-VR50)
⓭ Back panel
❷ Two screws (BVTP 3x8)
⓬ Power cord
❾ Three screws (BVTP 3x8)
❿ Two screws (BVTP 3x8) (HCD-VR70)
❽ Five screws (BVTP 3x8)
❼ Seven screws (BVTP 3x8)
⓯ Main board
❻ Connector (CN903)
❶ Flat type wire (CN1)
⓫ Fan motor
❸ Tuner unit
❺ Flat type wire (CN411)
⓮ Two screws (BVTP 3x8)
❹ Connector (CN412)

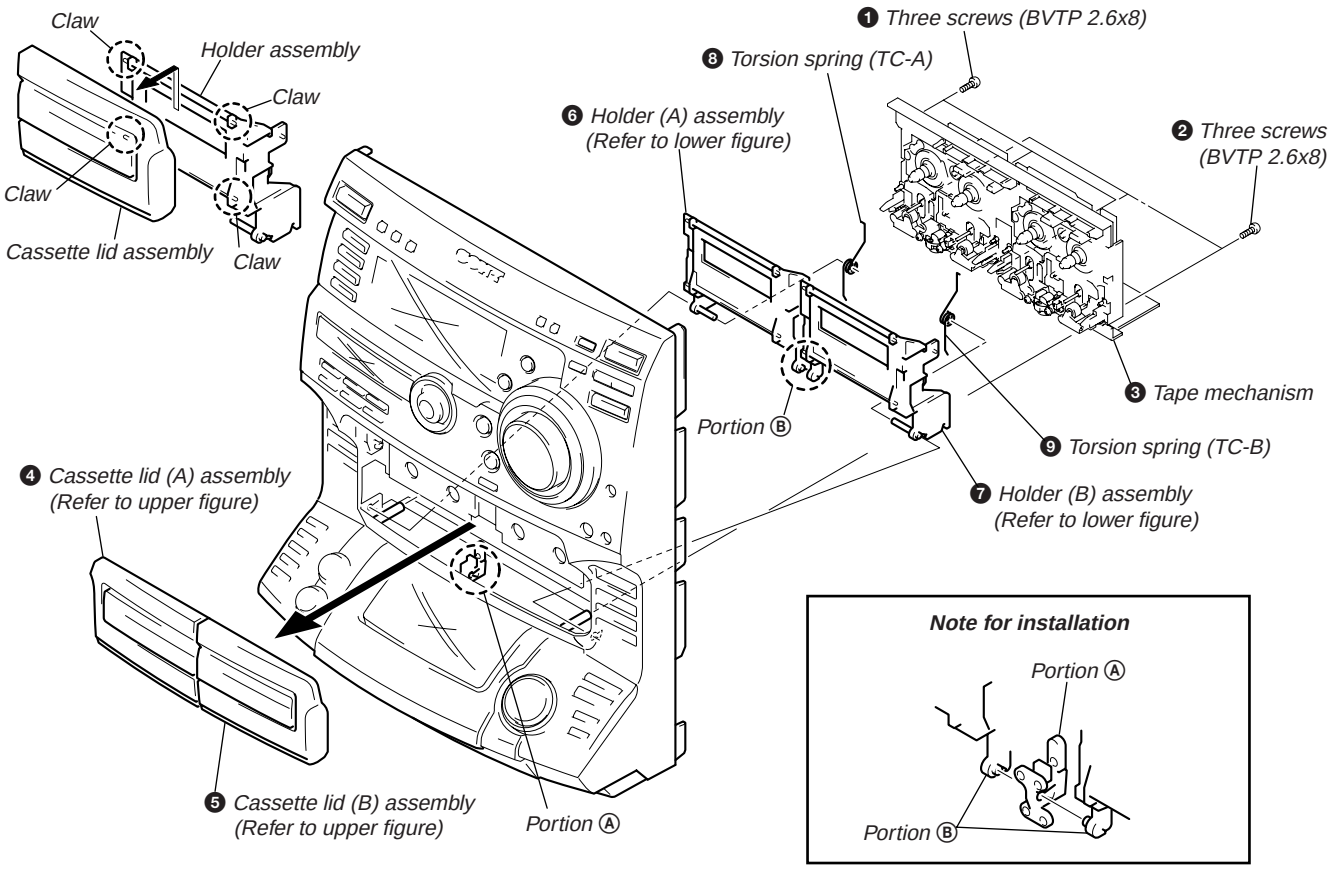
3-3. SUB PANEL


❼ Three screws (BVTP 2.6x8)
❻ Two screws (BVTP 2.6x8)
❶ Two screws (BVTP 2.6x8)
❹ Two screws (BTP 2.6x6)
❸ Open the CD lid assembly
❷ Front input board
❾ Two screws (BVTP 2.6x8)
❿ Bracket (CD-R2)
❺ Screw (BVTP 3x8)
❽ Sub panel block

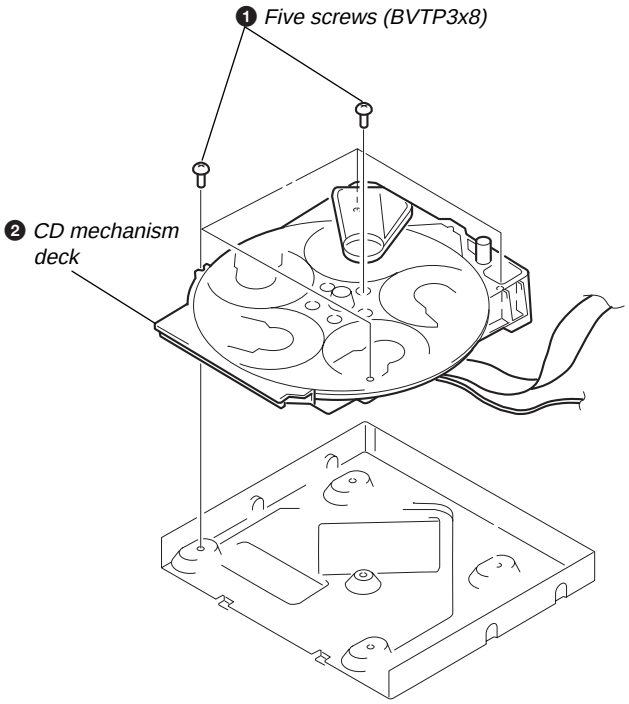
3-4. CD-L/CD-R BOARD AND CD LID ASSEMBLY



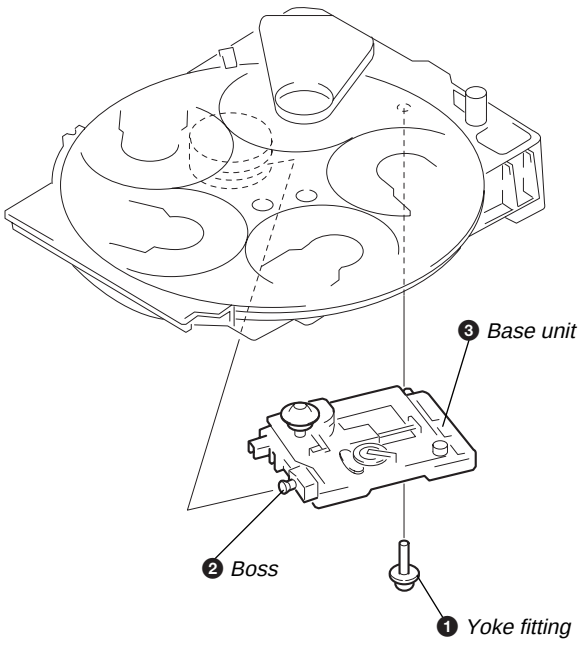
3-5. TAPE MECHANISM DECK AND CASSETTE LID



3-6. CD MECHANISM DECK

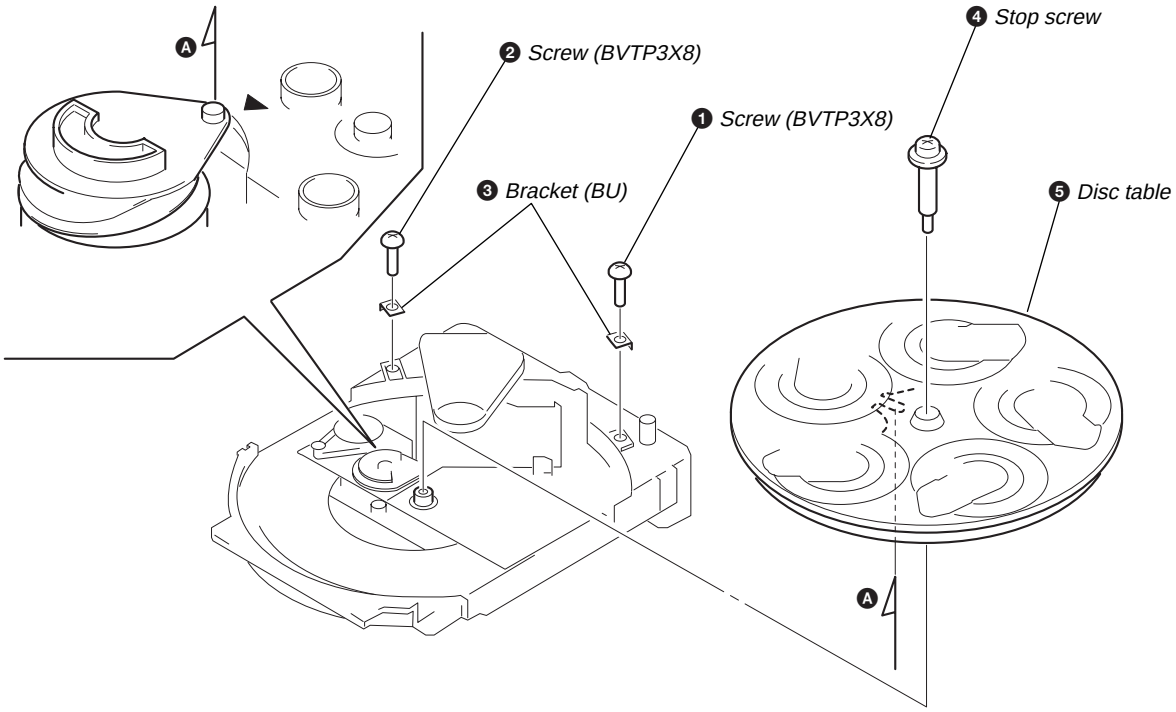


3-7. BASE UNIT



3-8. DISC TABLE

Note:
When the disc table is installed, adjust the positions of roller cam and mark ▶ as shown in the figure, then set to the groove of disc table.



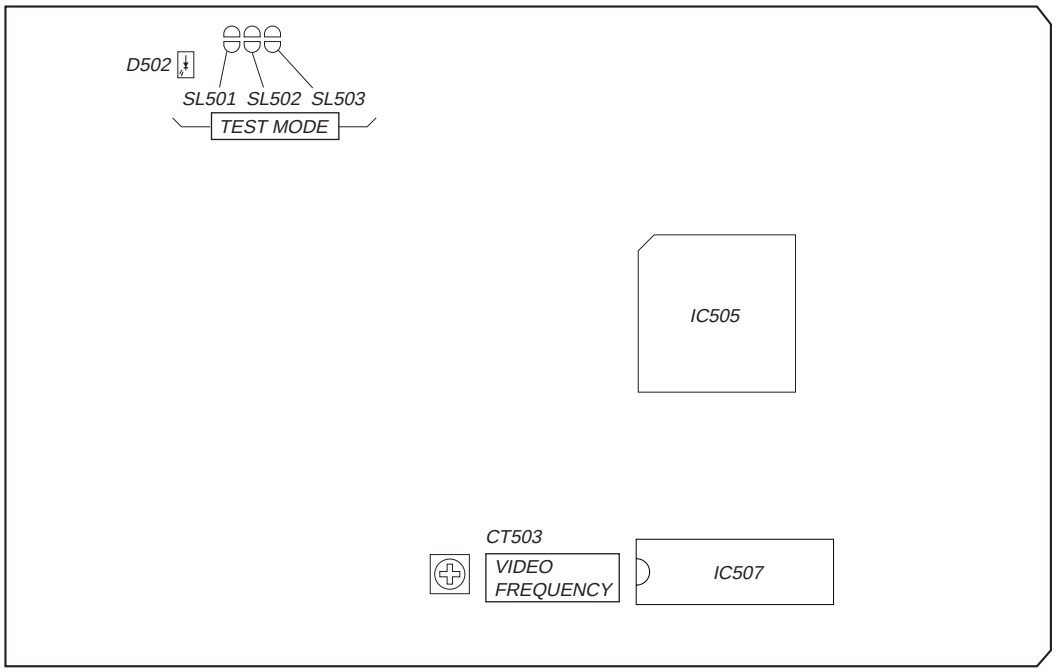
SECTION 4
TEST MODE

VIDEO CD COLOR-BARS MODE

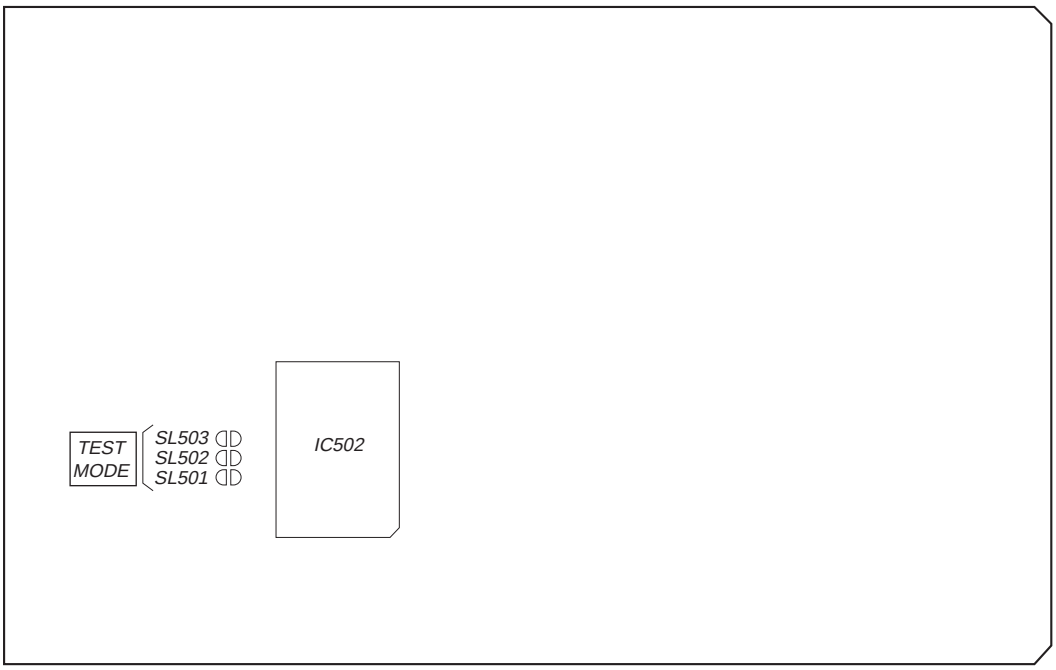
On this mode, the data of the color-bars signal as a picture signal and the 1kHz sine wave signal as a sound signal are output by the mechanism control microcomputer (IC502) for video CD signal check. When measurement of the voltage and waveform on the VIDEO board, perform it in this mode.
For reference, the color-bars signal can be observed at J302 (VIDEO OUT) and the sound signal can be observed at J101 (VIDEO/MD (AUDIO) OUT) using an oscilloscope.

1. Connect the lead wire to both ends of the land of SL503 of the VIDEO board.
2. Turn the power on. Press FUNCTION button to select CD.
3. After 2 or 3 seconds later, connect the lead wire.
4. After measuring, remove the lead wire connected.

[VIDEO BOARD] (SIDE A)



[VIDEO BOARD] (SIDE B)



SECTION 5
MECHANICAL ADJUSTMENTS

Precaution

1. Clean the following parts with a denatured alcohol-moistened swab:
   record/playback heads — pinch rollers
   erase head — rubber belts
   capstan — idlers
2. Demagnetize the record/playback head with a head demagnetizer.
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, apply suitable locking compound to the parts adjusted.
5. The adjustments should be performed with the rated power supply voltage unless otherwise noted.

Torque Measurement

Mode	Torque meter	Meter reading
FWD	CQ-102C	31 to 71 g • cm (0.43 – 0.98 oz • inch)
FWD back tension	CQ-102C	2 to 6 g • cm (0.02 – 0.08 oz • inch)
REV	CQ-102RC	31 to 71 g • cm (0.43 – 0.98 oz • inch)
REV back tension	CQ-102RC	2 to 6 g • cm (0.02 – 0.08 oz • inch)
FF/REW	CQ-201B	71 to 143 g • cm (0.98 – 1.99 oz • inch)
FWD tension	CQ-403A	100 g or more (3.53 oz or more)
REV tension	CQ-403R	100 g or more (3.53 oz or more)

SECTION 6
ELECTRICAL ADJUSTMENTS

DECK SECTION **0 dB=0.775V**

1. Demagnetize the record/playback head with a head damagnetizer.
2. Do not use a magnetized screwdriver for the adjustments.
3. After the adjustments, apply suitable locking compound to the parts adjusted.
4. The adjustments should be performed with the rated power supply voltage unless otherwise noted.
5. The adjustments should be performed in the order given in this service manual. (As a general rule, playback circuit adjustment should be completed before performing recording circuit adjustment.)
6. The adjustments should be performed for both L-CH and R-CH.
7. Switches and controls should be set as follows unless otherwise specified.

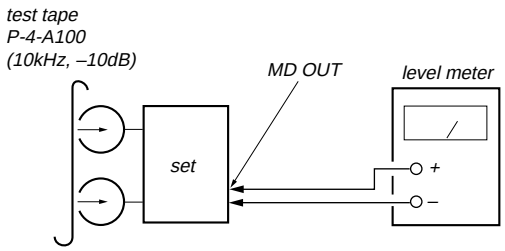
Tape	Signal	Used for
P-4-A100	10 kHz, –10 dB	Azimuth Adjustment
WS-48B	3 kHz, 0 dB	Tape Speed Adjustment
P-4-L300	315 Hz, 0 dB	Level Adjustment

Record/Playback Head Azimuth Adjustment (Deck A, Deck B)

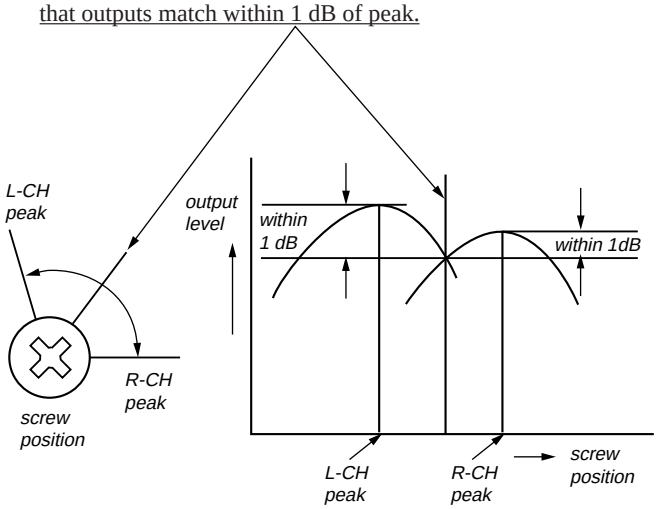
Note: Perform this adjustments for both decks.

Procedure:

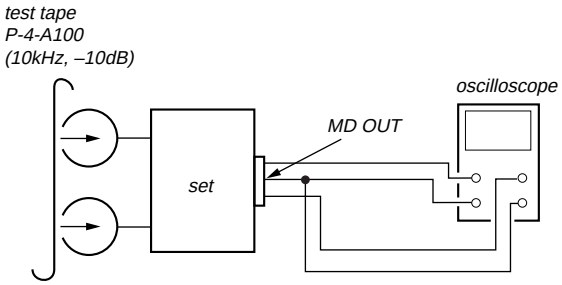
1. Mode : Playback

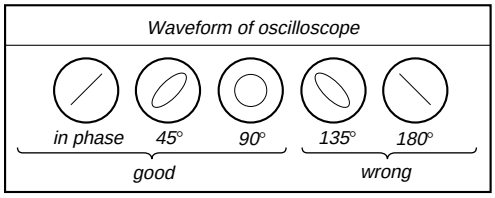


2. Turn the adjustment screw and check output peaks. If the peaks do not match for L-CH and R-CH, turn the adjustment screw so that outputs match within 1 dB of peak.



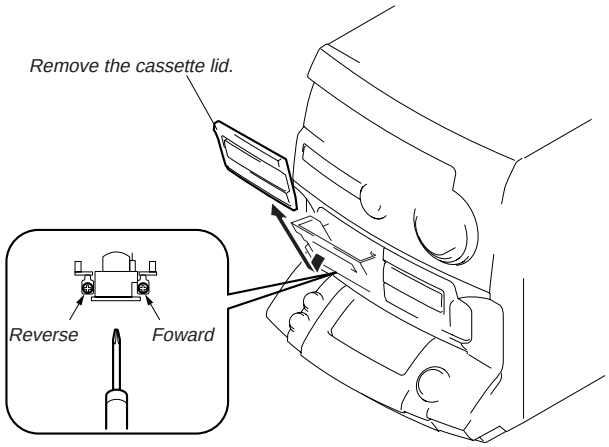
3. Mode: Playback





4. After the adjustments, apply suitable locking compound to the parts adjusted.

Adjustment Location: Playback Head (Deck A)
Record/Playback/Erase Head (Deck B)



Tape Speed Adjustment (Deck B)

Note: Set the test mode using the following method and begin tape speed adjustment.
In the test mode, the speed will switch to double speed or normal speed each time the HI-SPEED DUB button is pressed.

Procedure:
With the power turned ON, press the ⏲/CLOCK SET button, ENTER button, and DISC 3 button simultaneously.
(The "CD TRAY INDICATOR" on the fluorescent display tube will blink while in the test mode.)
To exit the test mode, press the I/⏻ button.

1. Insert the WS-48B into deck B.
2. Press the ▶ button of deck B.
3. Press the HI-SPEED DUB button and play the tape at double speed.
4. Adjust RV1001 of the LEAF SW board so that the reading of the frequency counter becomes 6000 ± 180 Hz.
5. Press the HI-SPEED DUB button and play the tape at normal speed.
6. Adjust RV1002 of the LEAF SW board so that the reading of the frequency counter becomes 3000 ± 90 Hz.

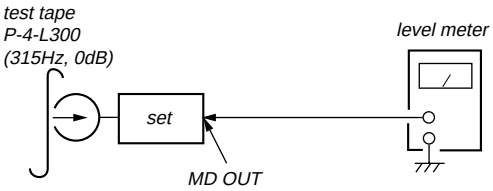
Adjustment Location: LEAF SW board

Sample Value of Wow and flutter

W.RMS (JIS) less than 0.3%
(test tape: WS-48B)

Playback Level Adjustment (Deck A, Deck B)

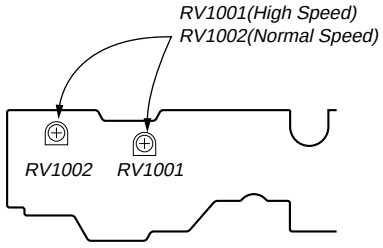
Procedure:
Mode: Playback



Deck A is RV311 (L-CH) and RV411 (R-CH), deck B is RV301 (L-CH) and RV401 (R-CH)
so that adjustment within the following adjustment level.

Adjustment level:
CN301 playback level: 301.5 to 338.3 mV (–8.2 to –7.2 dB)
level difference between the channels: within ± 0.5 dB
Adjustment Location: AUDIO board

Adjustment Location [LEAF SW BOARD]

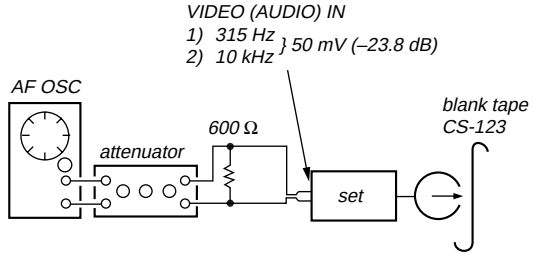


Record Bias Adjustment (Deck B)

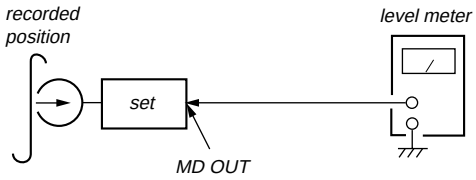
Procedure:

INTRODUCTION
When set to the test mode performed in **Tape Speed Adjustment**, when the tape is rewound after recording, the "REC memory mode" which rewinds only the recorded portion and playback is set.
This "REC memory mode" is convenient for performing this adjustment. During recording, the input signal FUNCTION will automatically switch to VIDEO.
(After recording, press the ◀◀ button without stopping will return to the position where recording was started.)

1. Press FUNCTION button to select VIDEO. (This step is not necessary if the above test mode has already been set.)
2. Insert a tape into deck B, press the ● REC button, and then press the ▷ button to start recording.
3. Mode: Record



4. Mode: Playback



5. Confirm playback the signal recorded in step 2 become adjustment level as follows.
   If these levels do not adjustment level, adjust the RV341 (L-CH) and RV441 (R-CH) on the AUDIO board to repeat steps 3 and 4.

Adjustment level: The playback output of 10 kHz level difference against 315 Hz reference should be ± 1.0 dB.

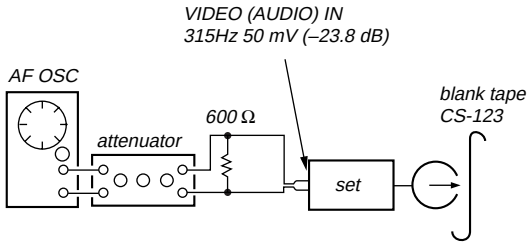
Adjustment Location: AUDIO board

Record Level Adjustment (Deck B)

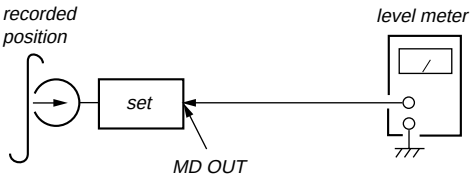
Procedure:

INTRODUCTION
When set to the test mode performed in **Tape Speed Adjustment**, when the tape is rewound after recording, the "REC memory mode" which rewinds only the recorded portion and playback is set.
This "REC memory mode" is convenient for performing this adjustment. During recording, the input signal FUNCTION will automatically switch to VIDEO.
(After recording, press the ◀◀ button without stopping will return to the position where recording was started.)

1. Press FUNCTION button to select VIDEO 1. (This step is not necessary if the above test mode has already been set.)
2. Insert a tape into deck B, press the ● REC button, and then press the ▷ button to start recording.
3. Mode: Record



4. Mode: Playback

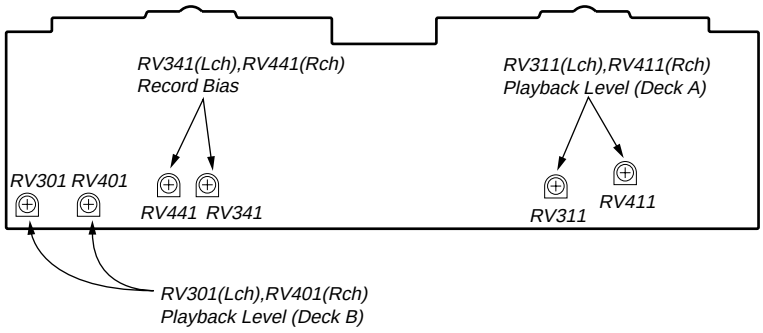


5. Confirm playback the signal recorded in step 2 become adjustment level as follows.
   If these levels do not adjustment level, adjust the RV301 (L-CH) and RV351 (R-CH) on the MAIN board to repeat steps 3 and 4.

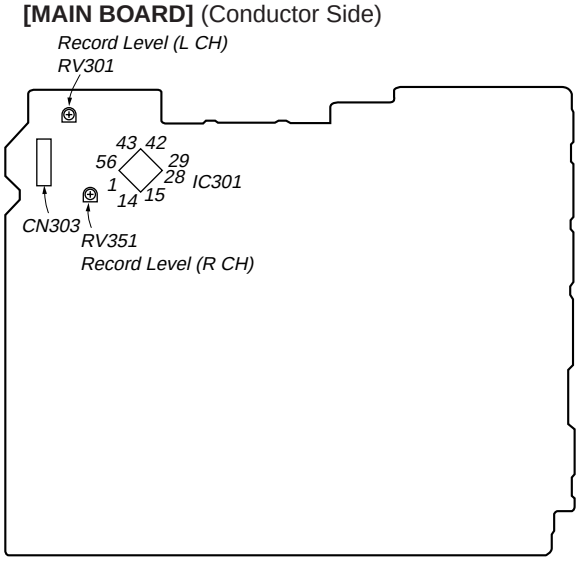
Adjustment level:
CN403 playback level: 47.2 to 53.0 mV (–24.3 to –23.3 dB)

Adjustment Location: MAIN board

Adjustment Location:
[AUDIO BOARD] (Conductor Side)



[MAIN BOARD] (Conductor Side)

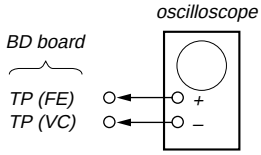


CD SECTION

Note:

1. CD Block is basically constructed to operate without adjustment. Therefore, check each item in order given.
2. Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
3. Use an oscilloscope with more than 10MΩ impedance.
4. Clean the object lens by an applicator with neutral detergent when the signal level is low than specified value with the following checks.

S Curve Check

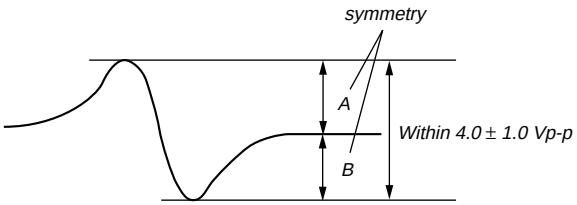


Adjustment Location: BD board

Procedure :

1. Connect the oscilloscope to test points TP (FE) and TP (VC).
2. Connect TP (FEI) and GND, and TP (AGCCON) and GND of the BD board with lead wires.
3. Press the I/⏻ button to turn the set ON.
4. With the disc (YEDS-18) loaded, press the ▷II button and perform focus search. (Focus search will be performed in the same way even while the disc table is pushed in and out.)
5. Check the symmetry and peak to peak level of the oscilloscope waveform (S curve) at this time.

S-curve waveform

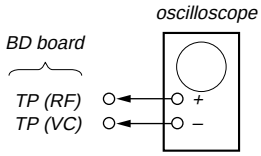


6. After check, remove the lead wire connected in step 2.

Note: • Try to measure several times to make sure than the ratio of A : B or B : A is more than 10 : 7.
• Take sweep time as long as possible and light up the brightness to obtain best waveform.

Adjustment Location: BD board

RF Level Check

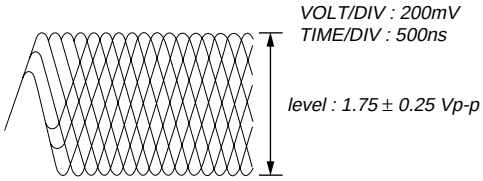


Procedure :

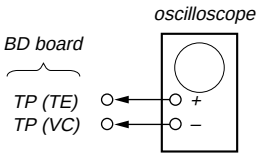
1. Connect oscilloscope to test point TP (RF) and TP (VC) on BD board.
2. Connect TP (AGCCON) and GND of the BD board with lead wires.
3. Press the I/⏻ button to turn the set ON.
4. Put disc (YEDS-18) in and playback 5track.
5. Confirm that oscilloscope waveform is clear and check RF signal level is correct or not.
6. After check, remove the lead wire connected in step 2.

Note: Clear RF signal waveform means that the shape "◊" can be clearly distinguished at the center of the waveform.

RF signal waveform



E-F Balance (Traverse) Check

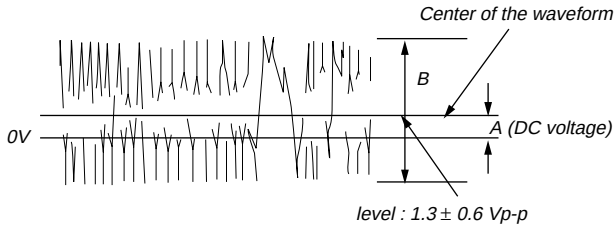


Adjustment Location: BD board

Procedure :

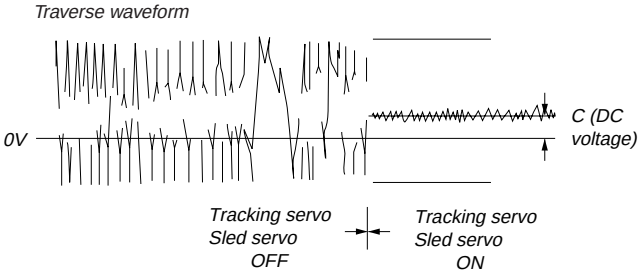
1. Connect oscilloscpe to test point TP (TE) on BD board.
2. Short-circuit SL502 of the video board to GND.
3. Turned Power switch on. Press FUNCTION button to select CD.
4. Put disc (YEDS-18) in to play the number five track.
5. Press the PLAY MODE button. (The tracking servo and the sledding servo are turned OFF.)
6. Check the level B of the oscilliscope's waveform and the A (DC voltage) of the center of the Traverse waveform.
   Confirm the following :
   A/B x 100 = less than ± 22%

Traverse waveform



7. Press the PLAY MODE button. (The tracking servo and sledding servo are turned ON.) Confirm the C (DC voltage) is almost equal to the A (DC voltage) is step 7.

Traverse waveform

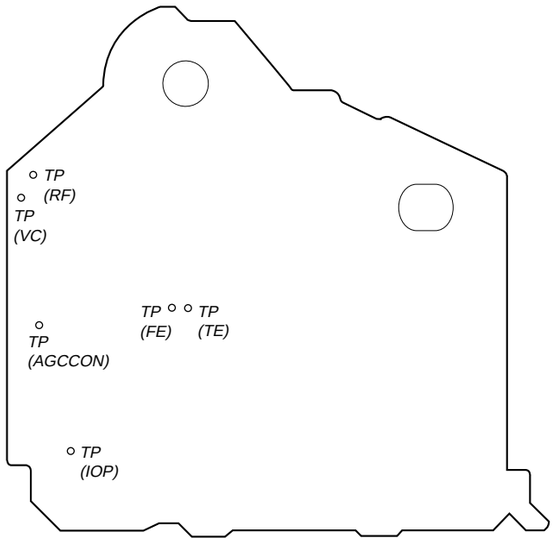


8. Desolder the short-land (SL502) short-circuited at step 2.

Adjustment Location: BD board

Adjustment Location :

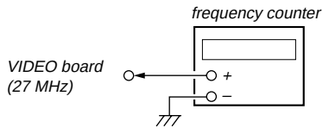
[BD BOARD] — SIDE B —



VIDEO SECTION

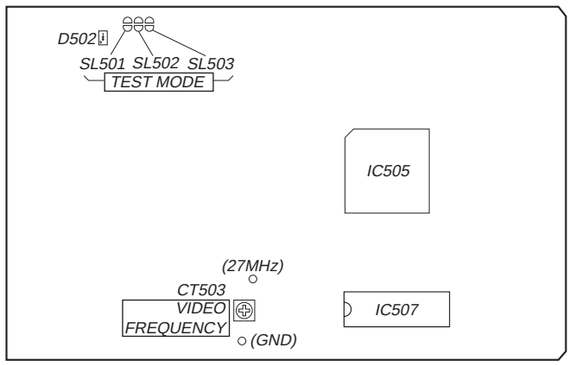
Frequency adjustment

1. Connect the frequency counter to check point of the VIDEO board.
2. Adjust CT503 of the VIDEO board so that the frequency counter read 27MHz ± 80Hz at STOP condition.

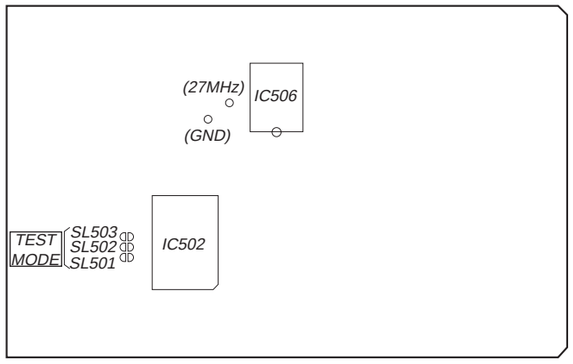


Adjustment Location :

[VIDEO BOARD] – SIDE A –

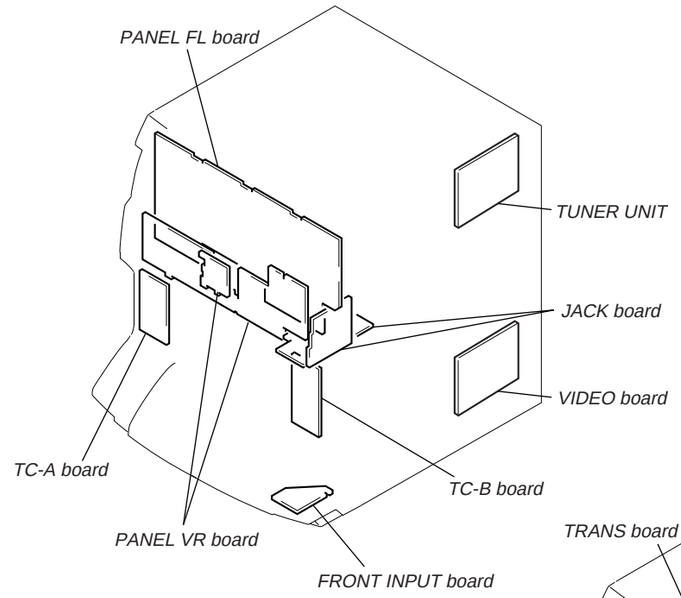


[VIDEO BOARD] – SIDE B –

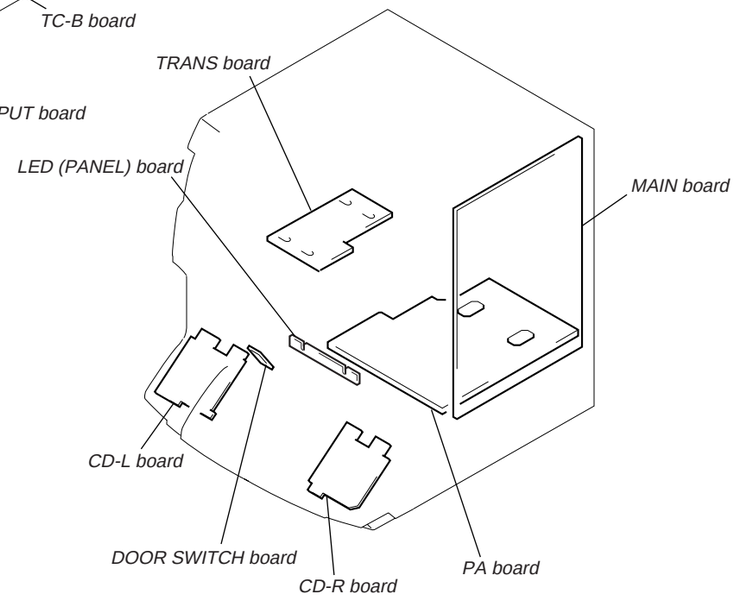


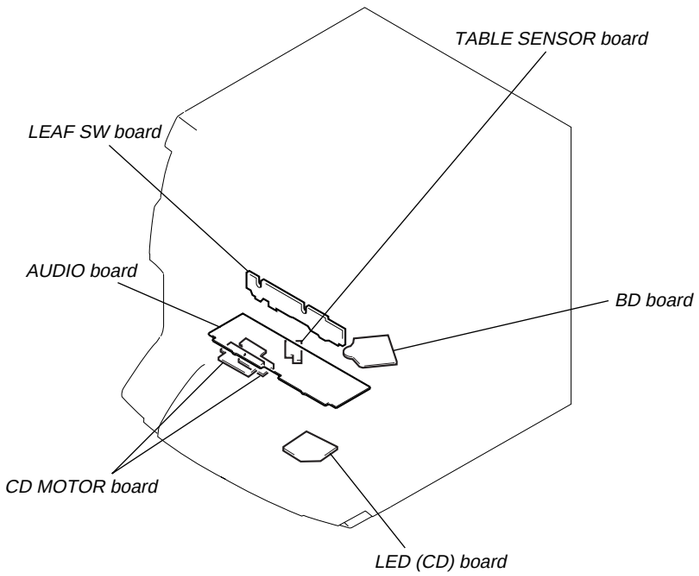
SECTION 7
DIAGRAMS

7-1. CIRCUIT BOARDS LOCATION

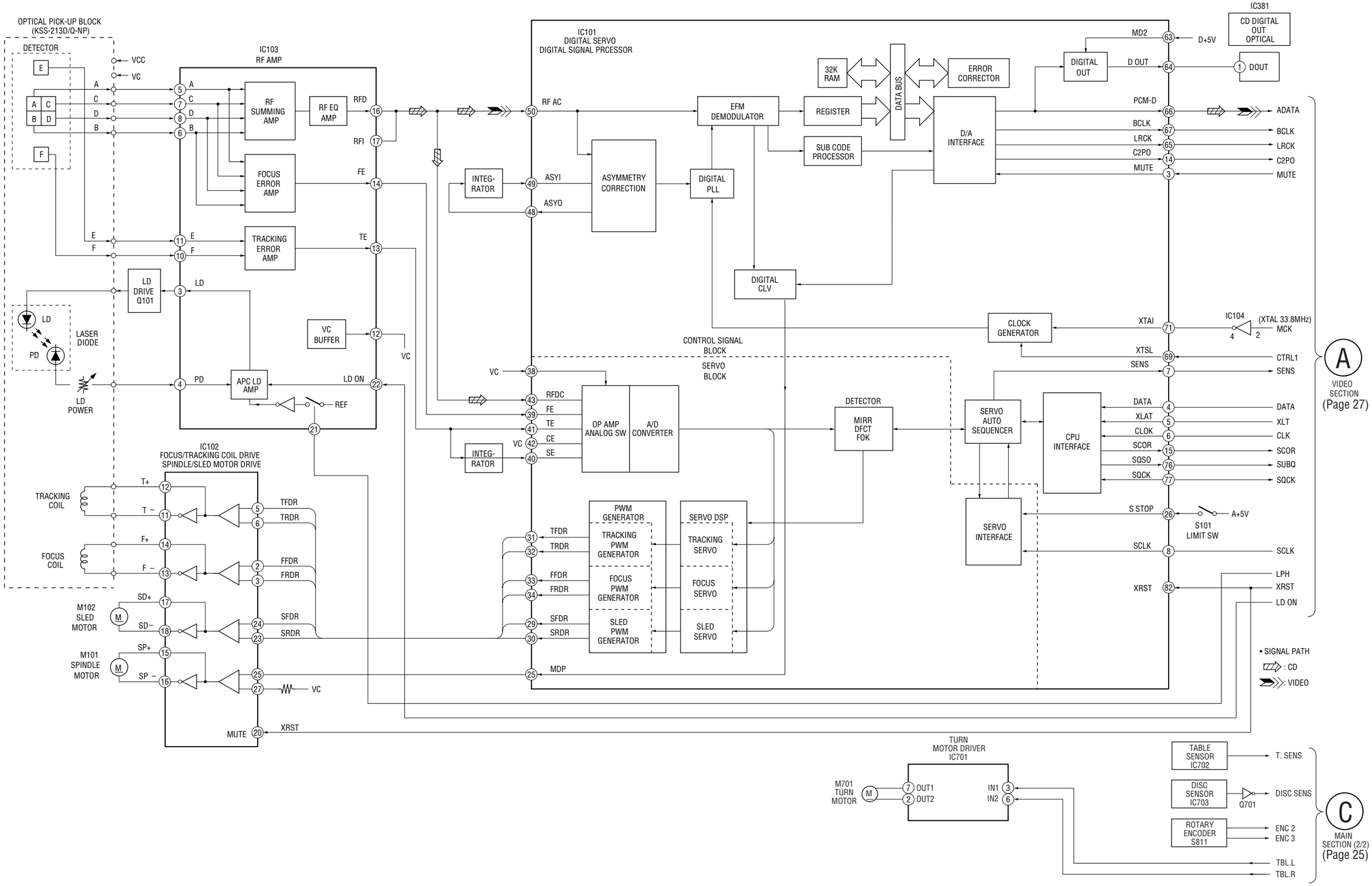


TUNER UNIT is supplied as the assembled block.



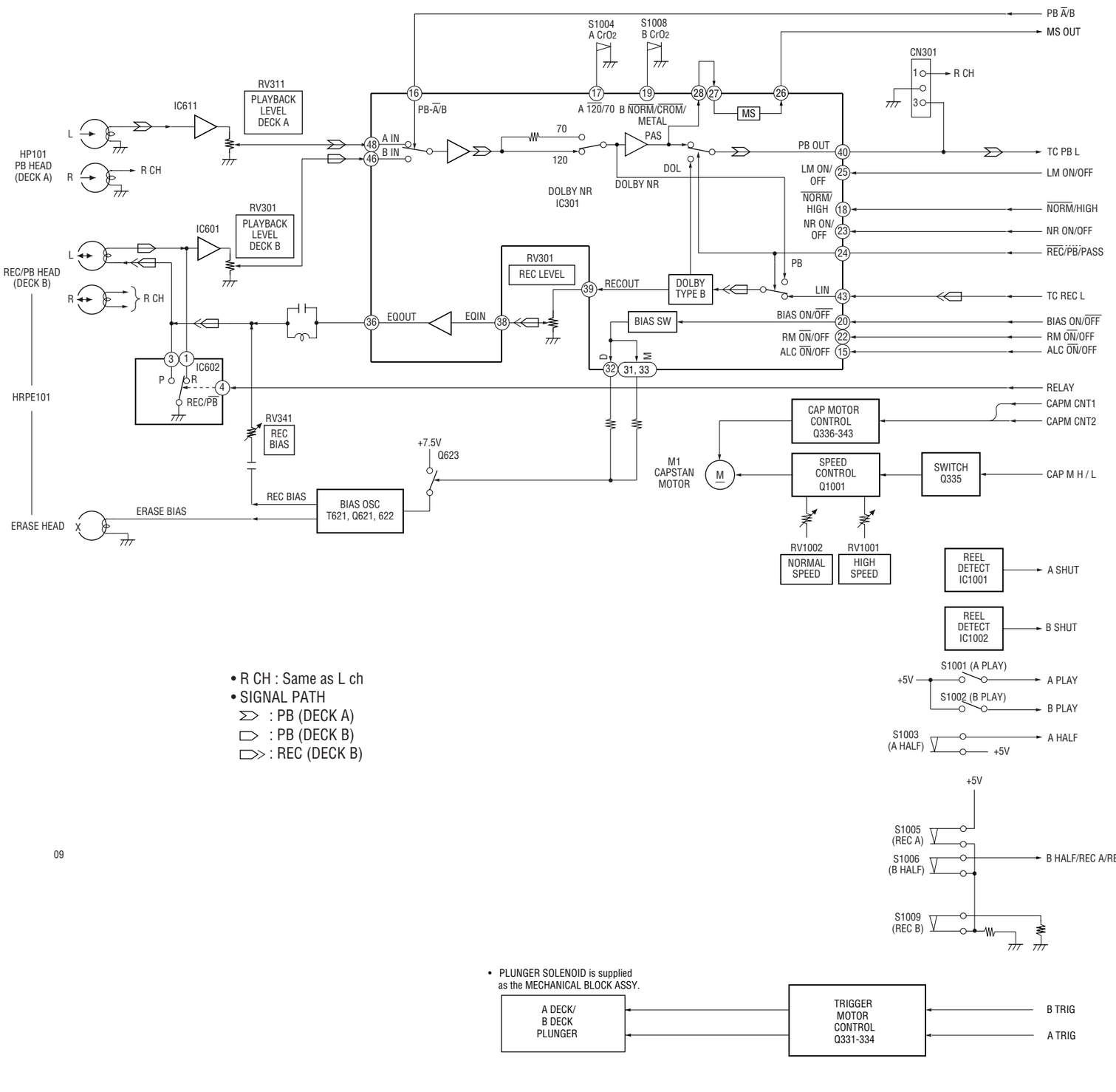


7-2. BLOCK DIAGRAMS – BD SECTION –



09

– DECK SECTION –

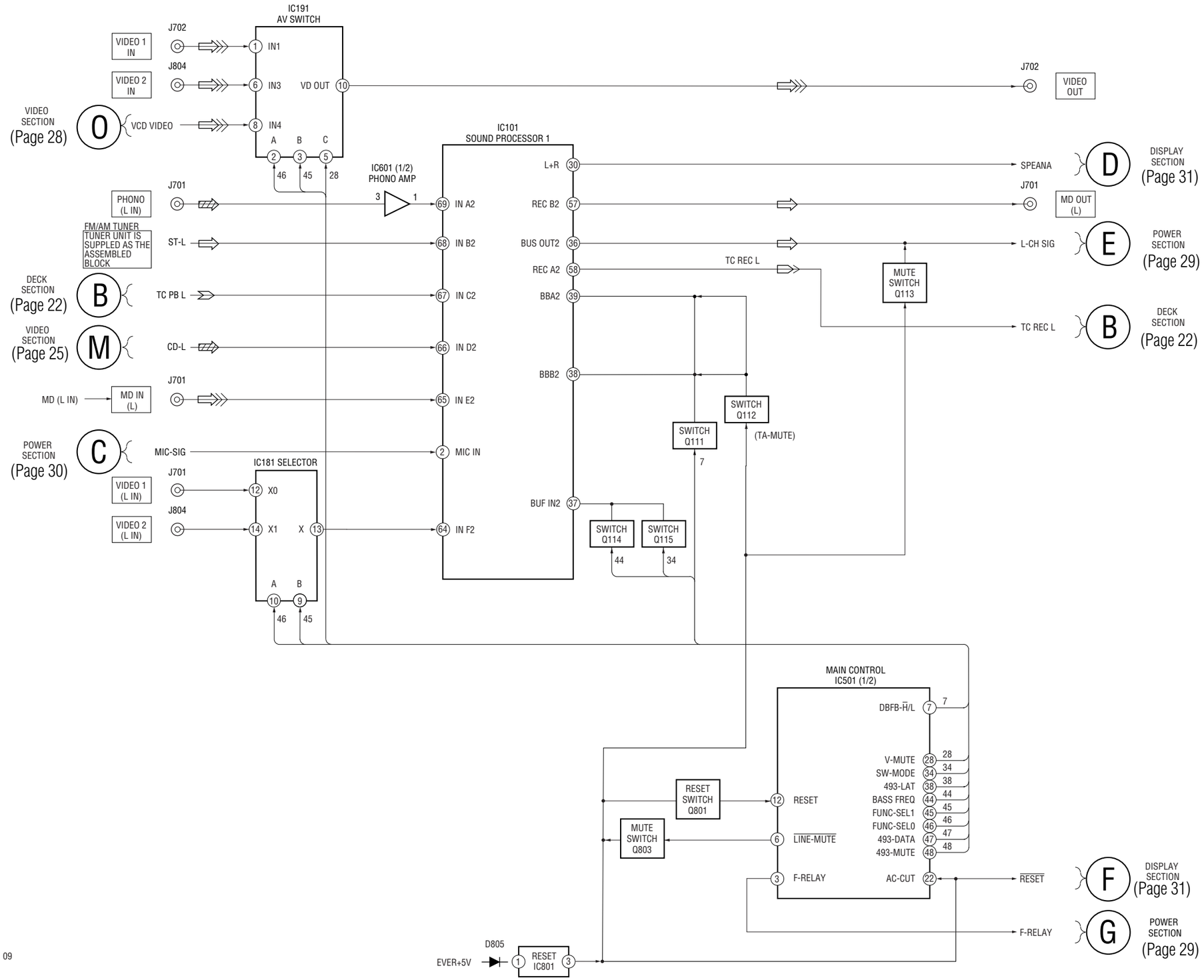


• R CH : Same as L ch
• SIGNAL PATH
  : PB (DECK A)
  : PB (DECK B)
  : REC (DECK B)

09

B
MAIN SECTION (1/2), (2/2)
(Page 23, 24, 25)

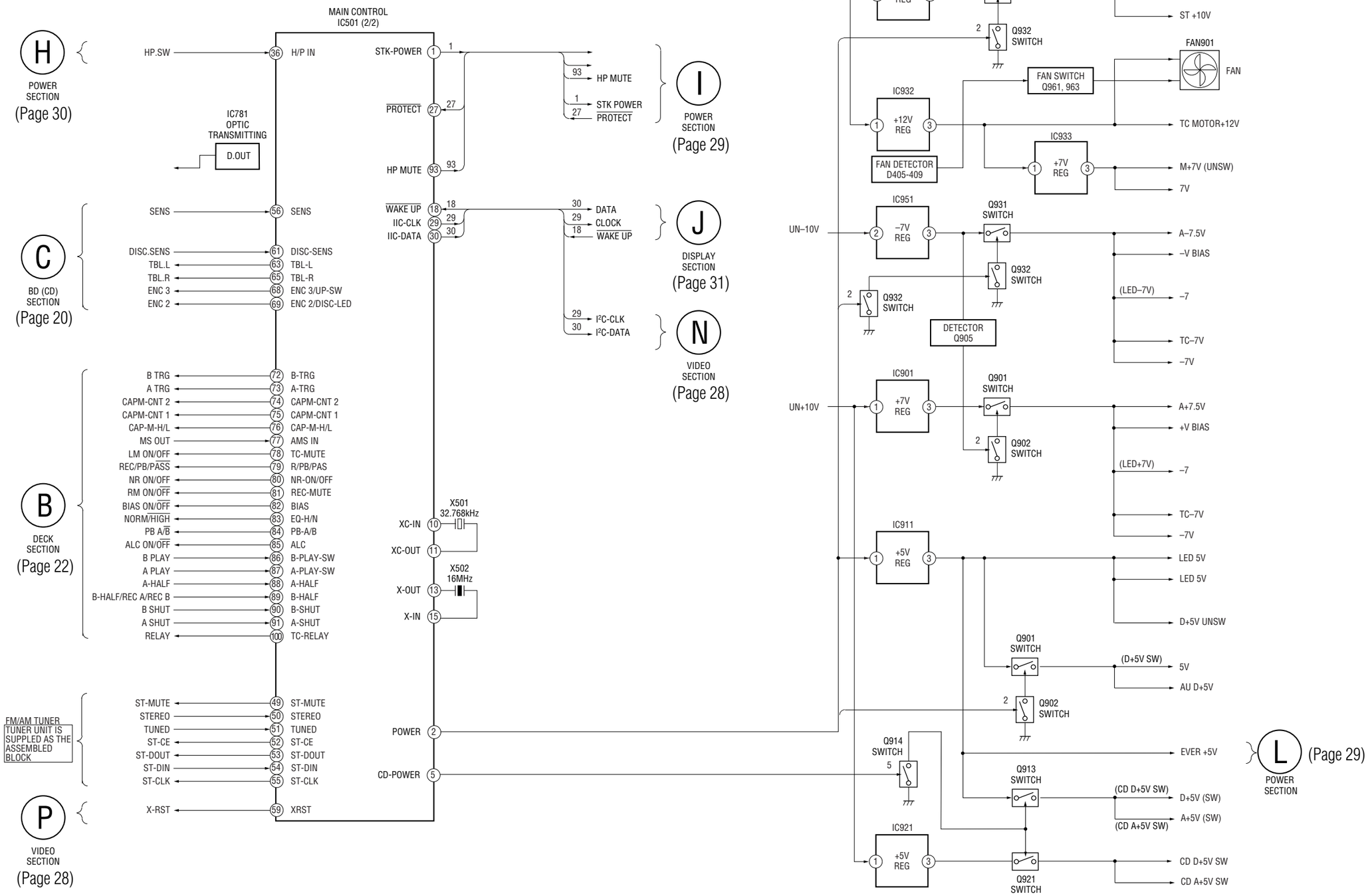
– MAIN (1/2) SECTION –



09

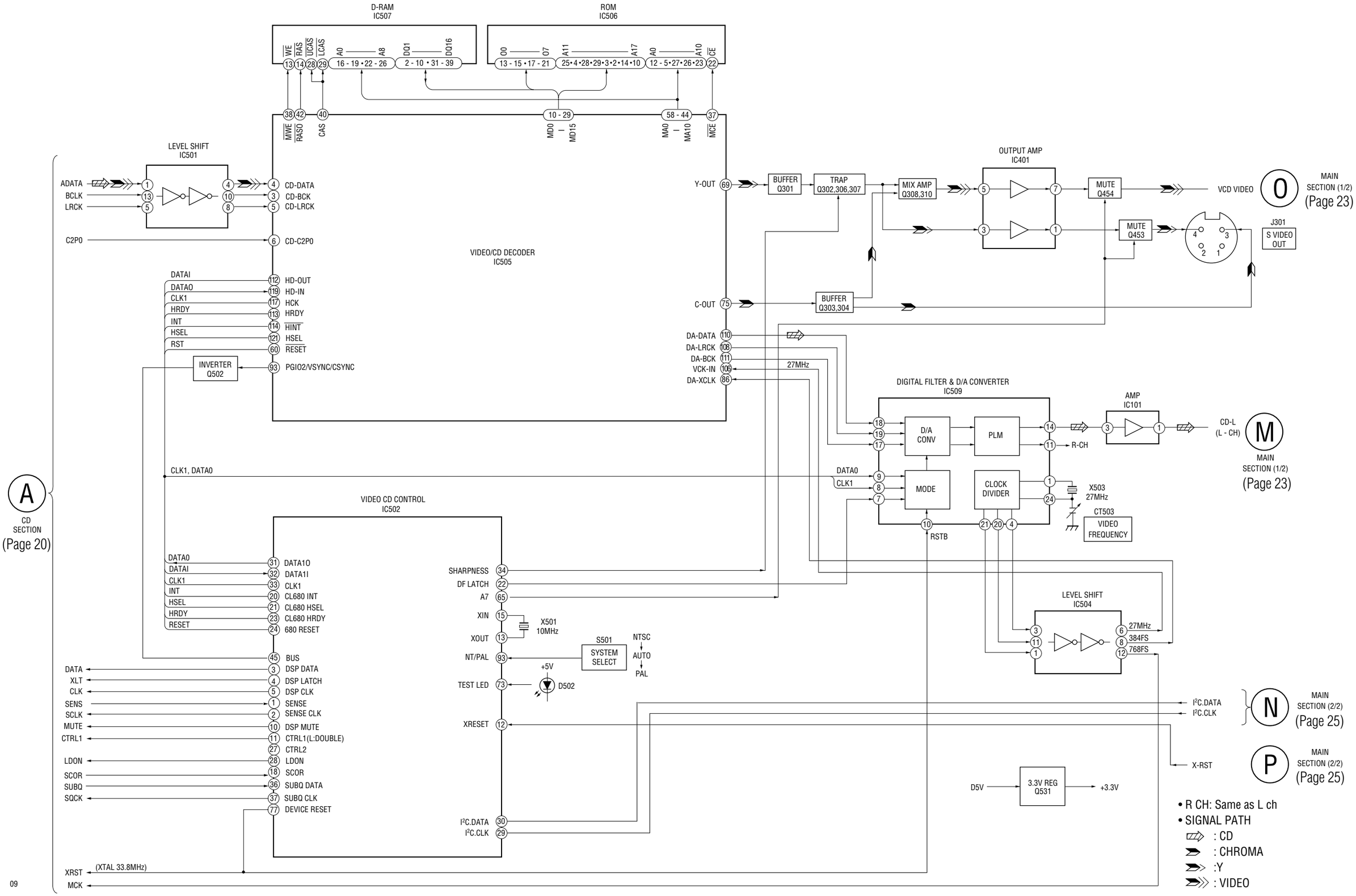
- R CH: Same as L ch
- SIGNAL PATH
  - : FM
  - : CD
  - : PB
  - : REC
  - : VIDEO/MD

– MAIN (2/2) SECTION –



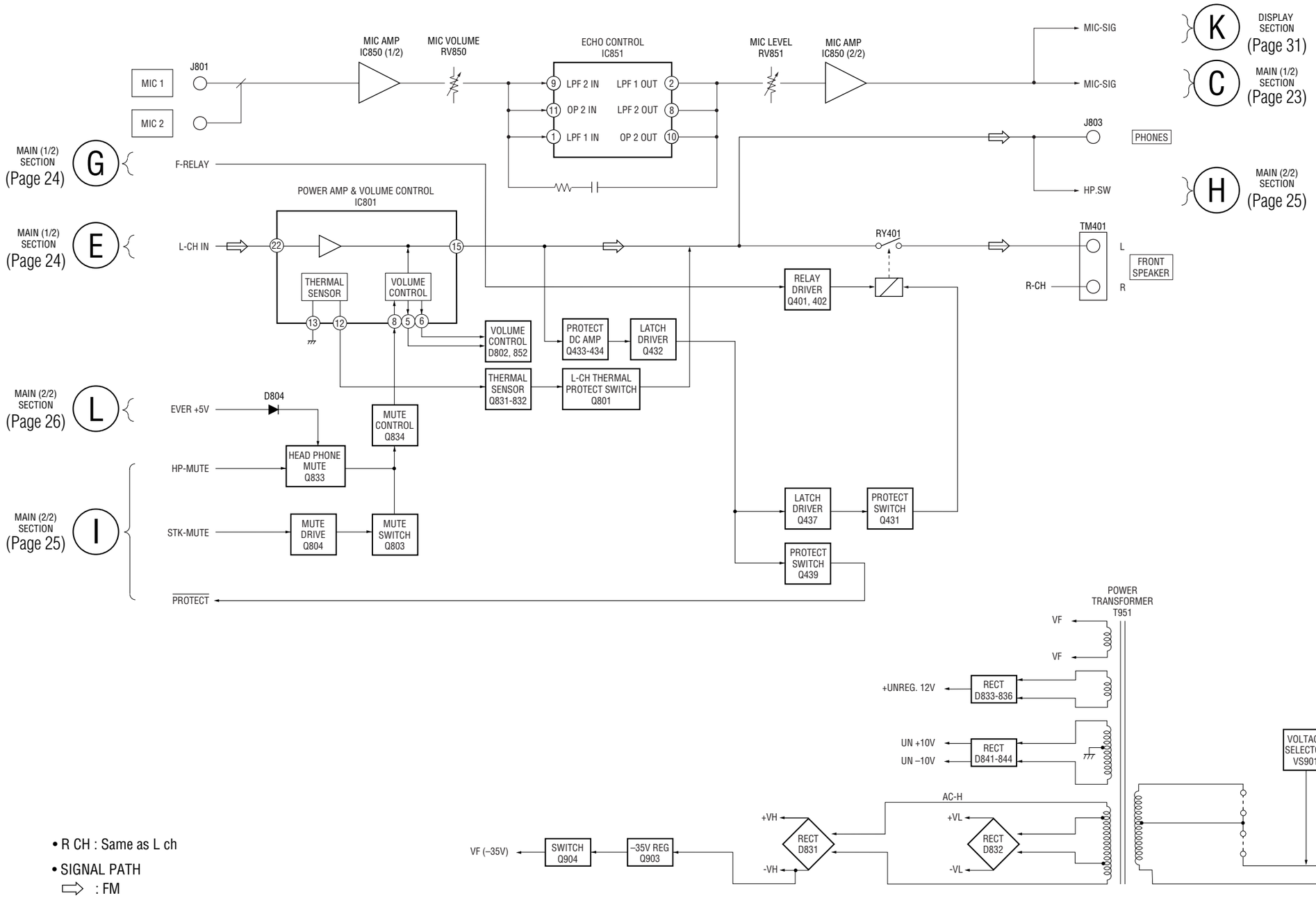
09 • R CH : Same as L ch

– VIDEO SECTION –



09

– POWER SECTION –



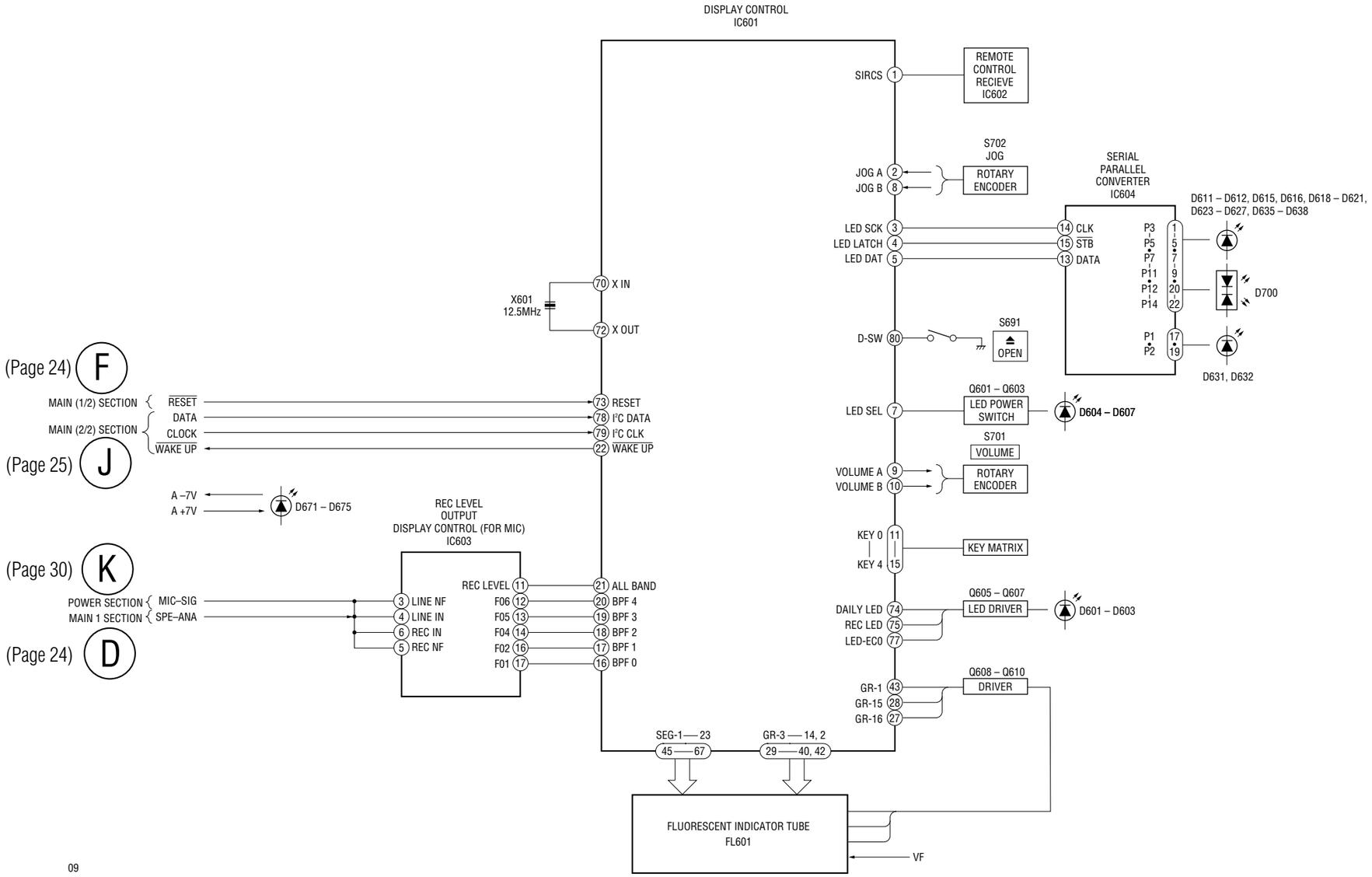
• R CH : Same as L ch

• SIGNAL PATH

⇨ : FM

09

– DISPLAY SECTION –



THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS.
(In addition to this, the necessary note is printed in each block.)

For schematic diagrams.

Note:

- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal component.
- : nonflammable resistor.
- : fusible resistor.
- : panel designation.

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

- B+ : B+ Line.
- B− : B– Line.
- : adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  - : FM
  - : VIDEO/MD
  - : PB (DECK A)
  - : PB (DECK B)
  - : REC (DECK B)
  - : CHROMA
  - : Y
  - : VIDEO
  - : CD
  - : digital out
- Abbreviation
  - EA : Saudi Arabia model.
  - SP : Singapore model.
  - MY : Malaysia model.
  - HK : Hong Kong model.
  - TW : Taiwan model.
  - IA : Indonesian model.
  - TH : Thai model.

For printed wiring boards.

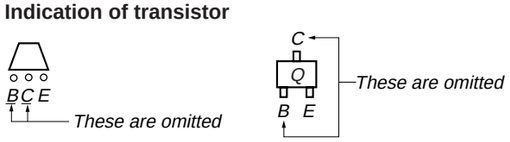
Note:

- ○——— : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- ■ : parts mounted on the conductor side.
- ○ : Through hole.
- ▒ : Pattern from the side which enables seeing.

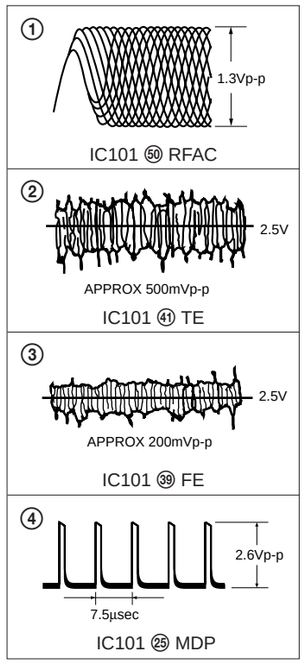
(The other layers' patterns are not indicated.)

Caution:
Pattern face side: (Side B) Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Side A) Parts on the parts face side seen from the parts face are indicated.

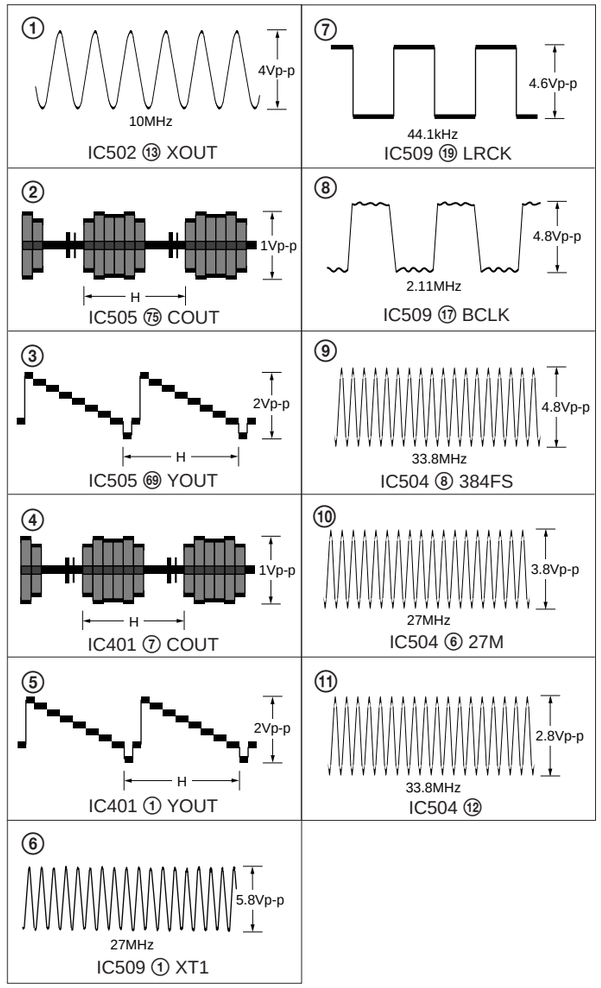
- **Indication of transistor**



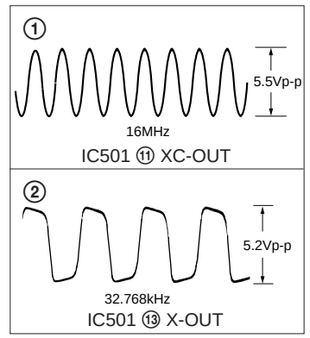
WAVEFORMS
– CD SECTION –



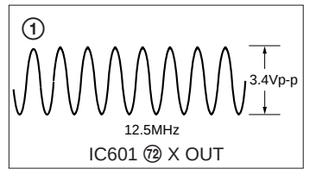
– VIDEO SECTION –



– MAIN (2/5) SECTION –

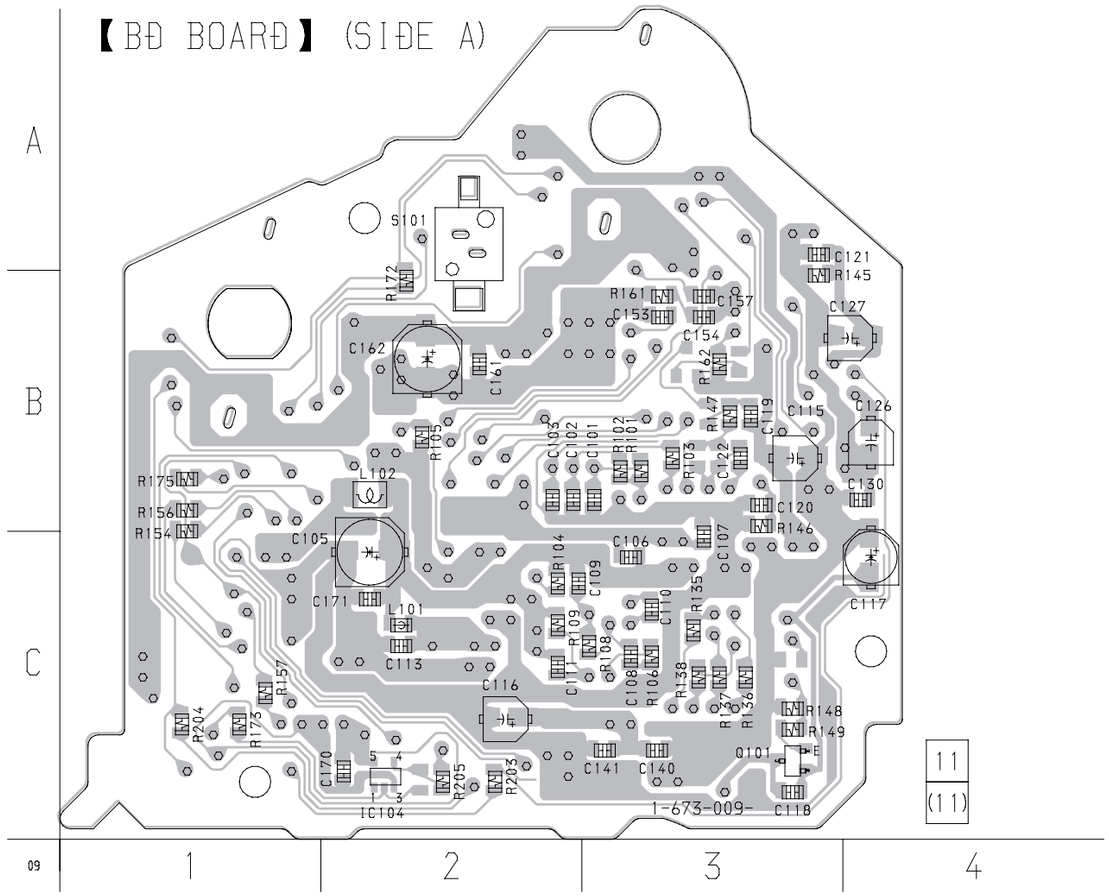


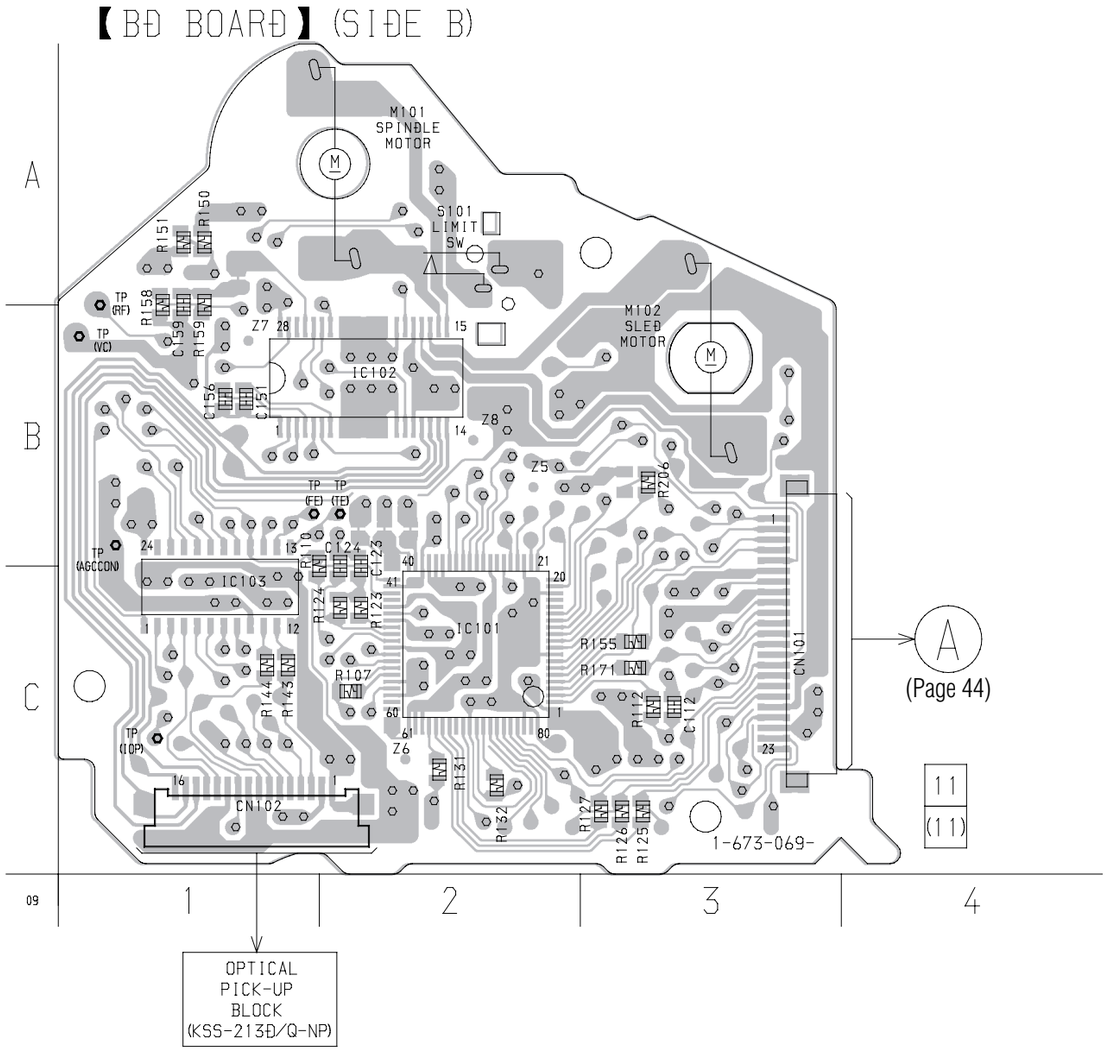
– PANEL FL SECTION –



7-3. PRINTED WIRING BOARD – BD SECTION –

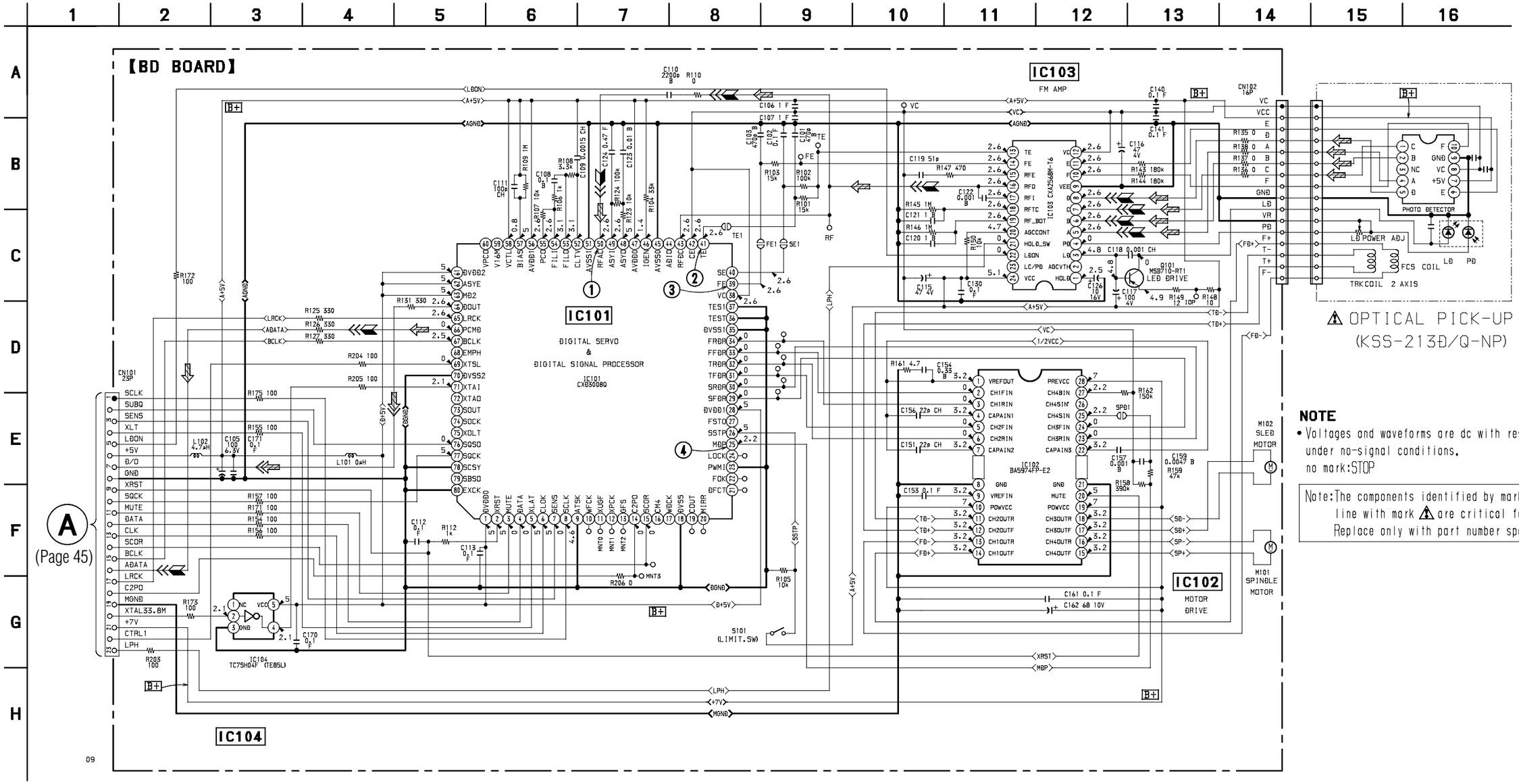
• See page 18 for Circuit Boards Location.





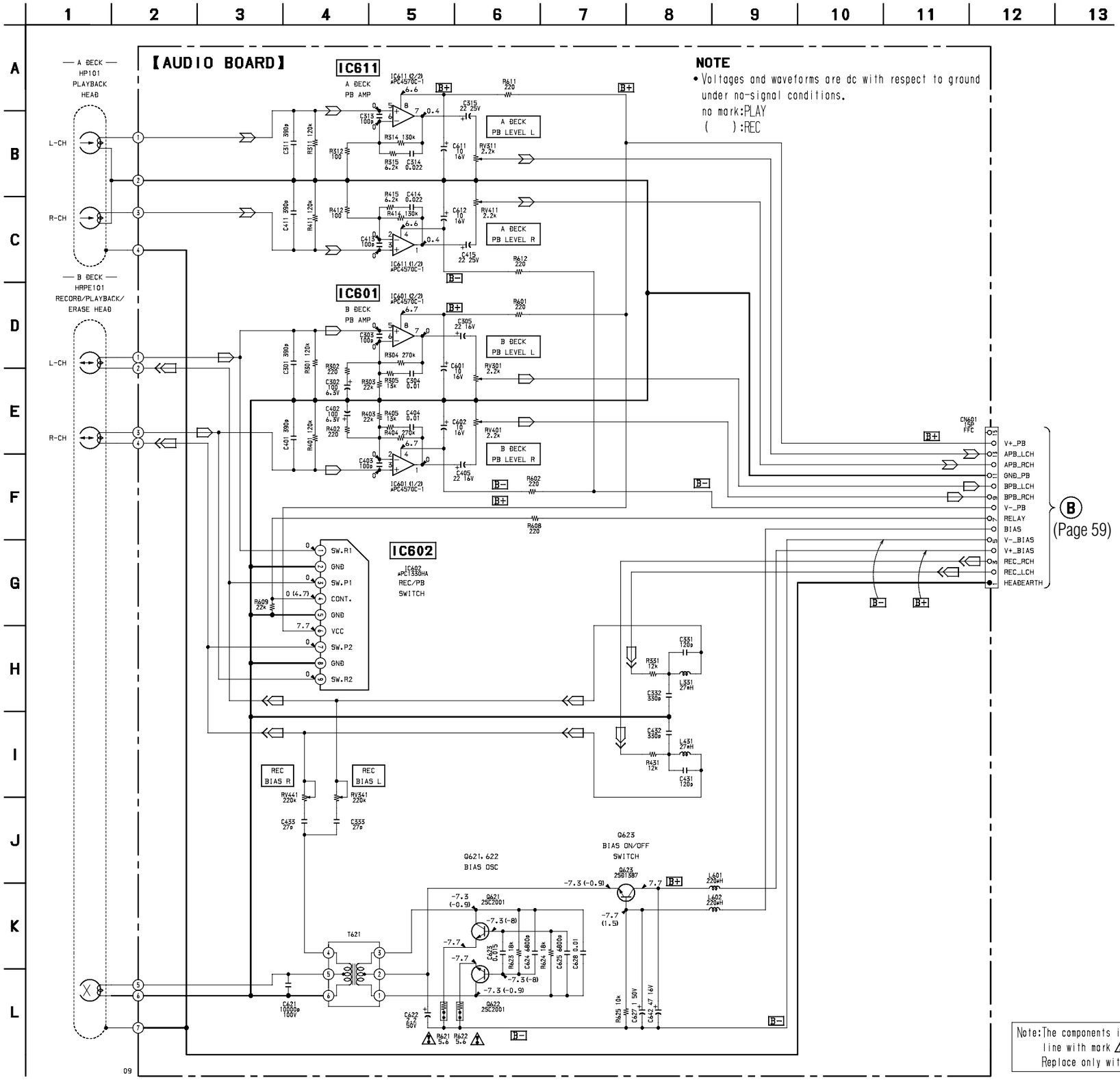
7-4. SCHEMATIC DIAGRAM – BD SECTION –

- See page 32 for Waveforms.
- See page 98 for IC Block Diagrams.
- See page 101 for IC Pin Functions.



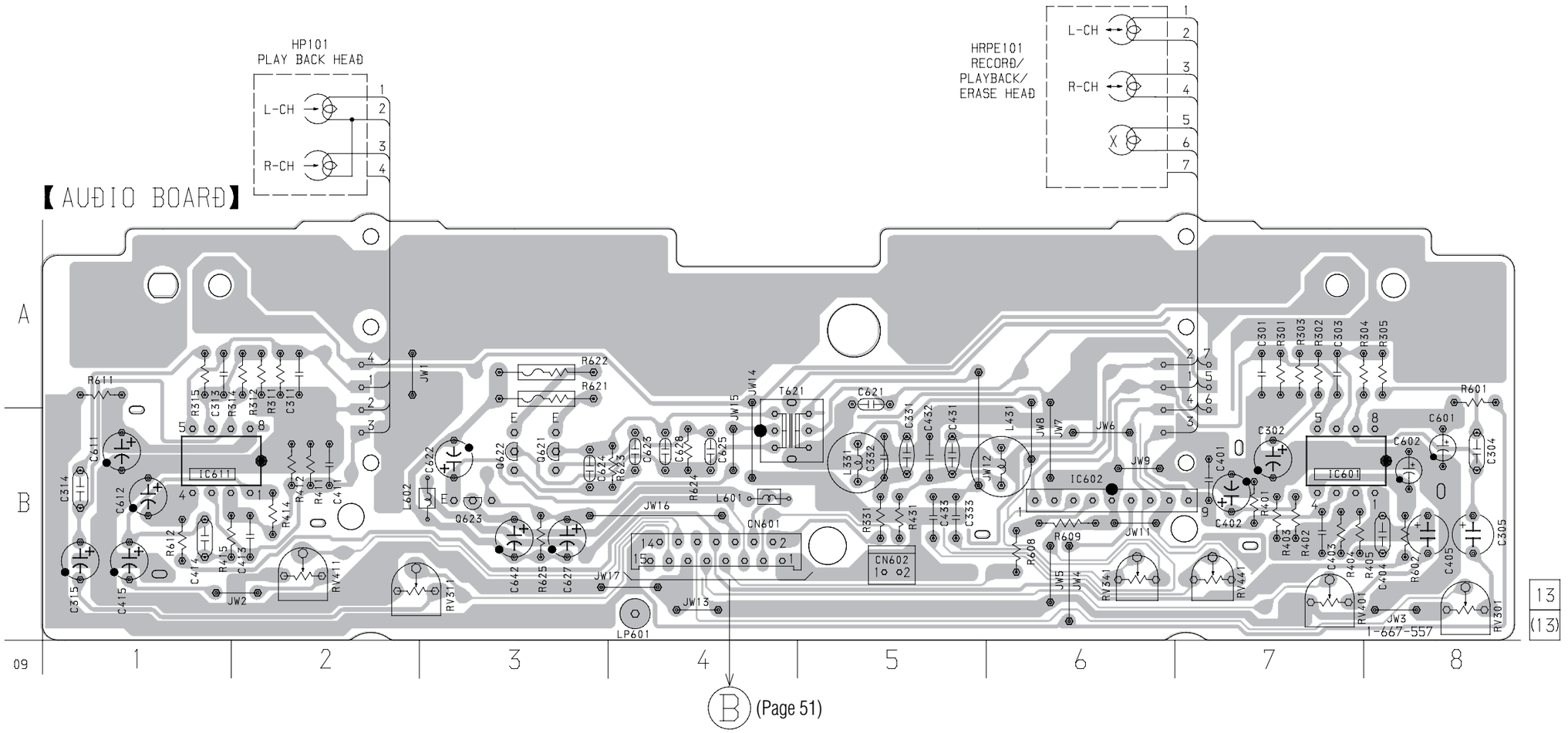
7-5. SCHEMATIC DIAGRAM – DECK SECTION –

• See page 98 for IC Block Diagrams.



7-6. PRINTED WIRING BOARD – DECK SECTION –

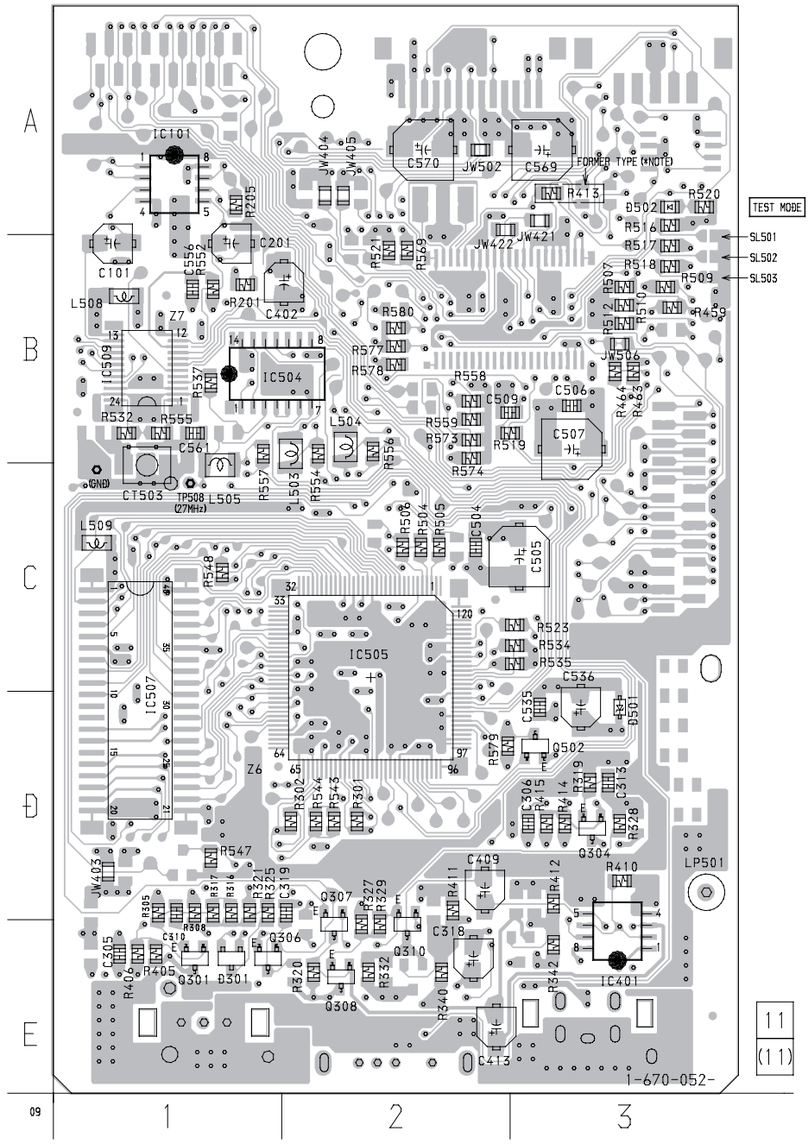
• See page 18 for Circuit Boards Location.



7-7. PRINTED WIRING BOARD – VIDEO SECTION –

• See page 18 for Circuit Boards Location.

【VIÐEO BOARÐ】(SIÐE A)

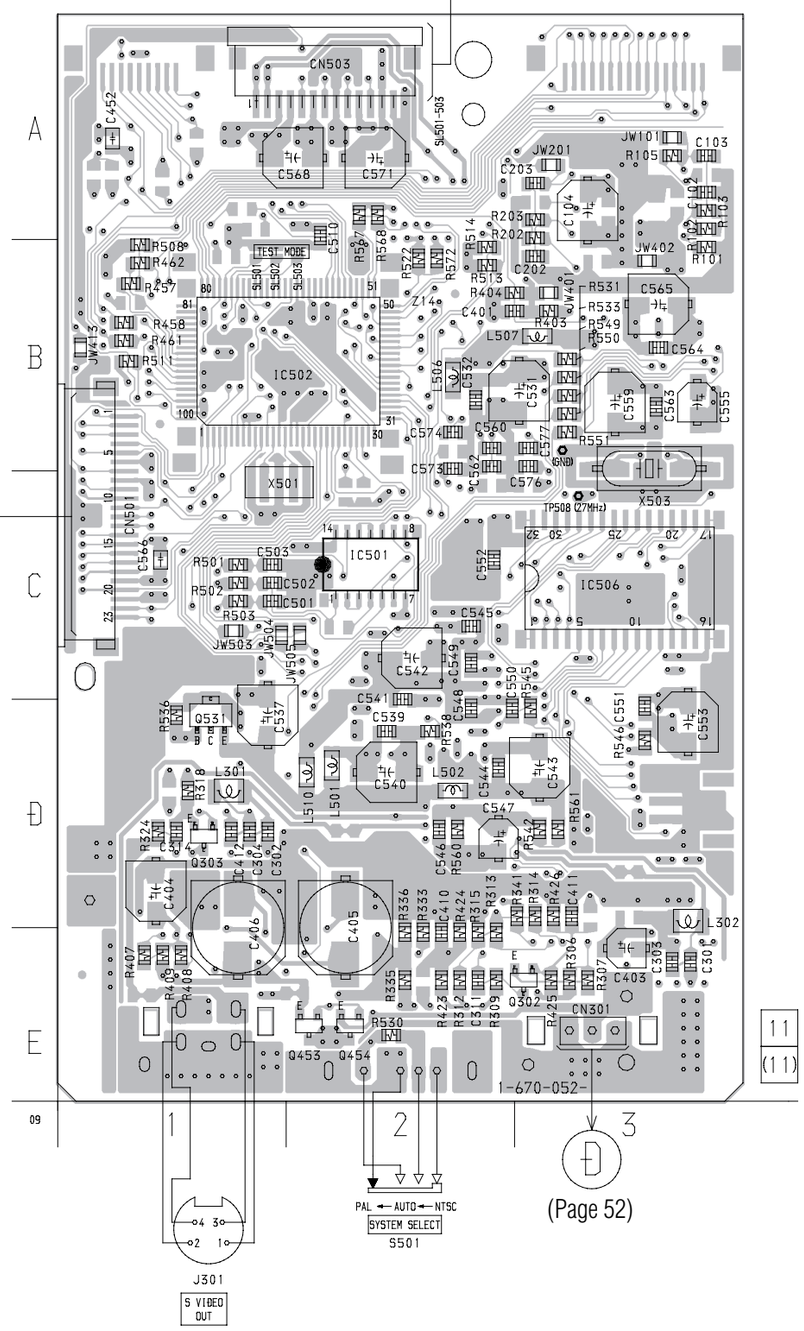


• **Semiconductor Location**

Ref. No.	Location
D301	E-1
D501	D-3
D502	A-3
IC101	A-1
IC401	E-3
IC504	A-1
IC505	C-2
IC507	C-1
IC509	B-1
Q301	E-1
Q304	D-3
Q306	E-1
Q307	E-2
Q308	E-2
Q310	E-2
Q502	D-3

(Page 52)

【VIÐEO BOARÐ】(SIÐE B)



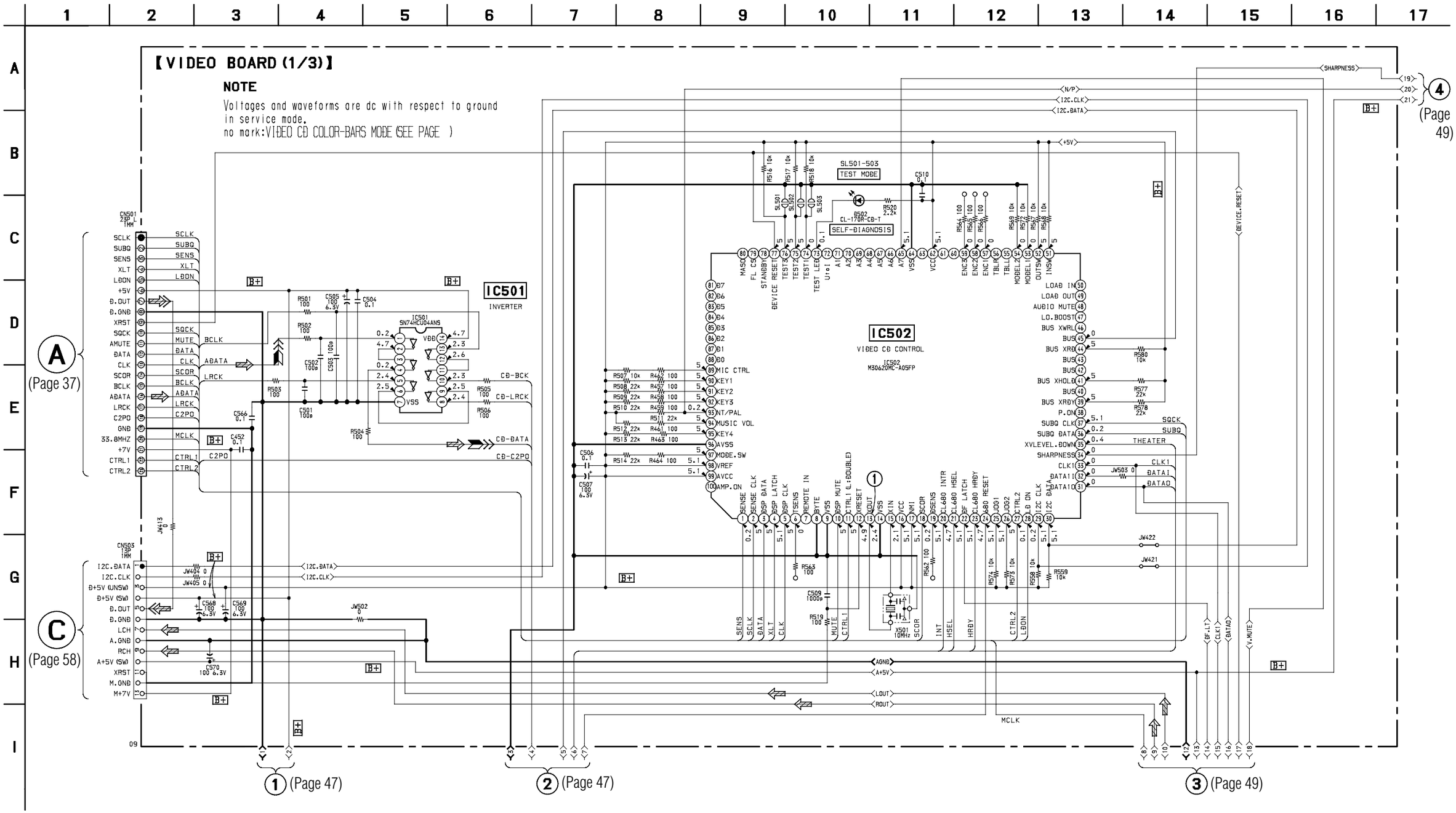
(Page 36)

• **Semiconductor Location**

Ref. No.	Location
IC501	C-2
IC502	B-1
IC506	C-3
Q302	E-3
Q303	D-1
Q453	E-2
Q454	E-2
Q531	D-1

7-8. SCHEMATIC DIAGRAM – VIDEO (1/3) SECTION –

- See page 34 for Waveforms.
- See page 103 for IC Pin Functions.



7-9. SCHEMATIC DIAGRAM – VIDEO (2/3) SECTION –

• See page 34 for Waveforms.
• See page 43 for Printed Wiring Board.
• See page 105 for IC Pin Functions.

【VIDEO BOARD (2/3)】

NOTE
Voltages and waveforms are dc with respect to ground in service mode.
no mark:VIDEO CD COLOR-BARS MODE (SEE PAGE)

1 (Page 45)
2 (Page 45)
5 (Page 49)
6 (Page 49)

IC505
CD/VIDEO DECODER
IC505
CL680T-D1

IC507
D-RAM

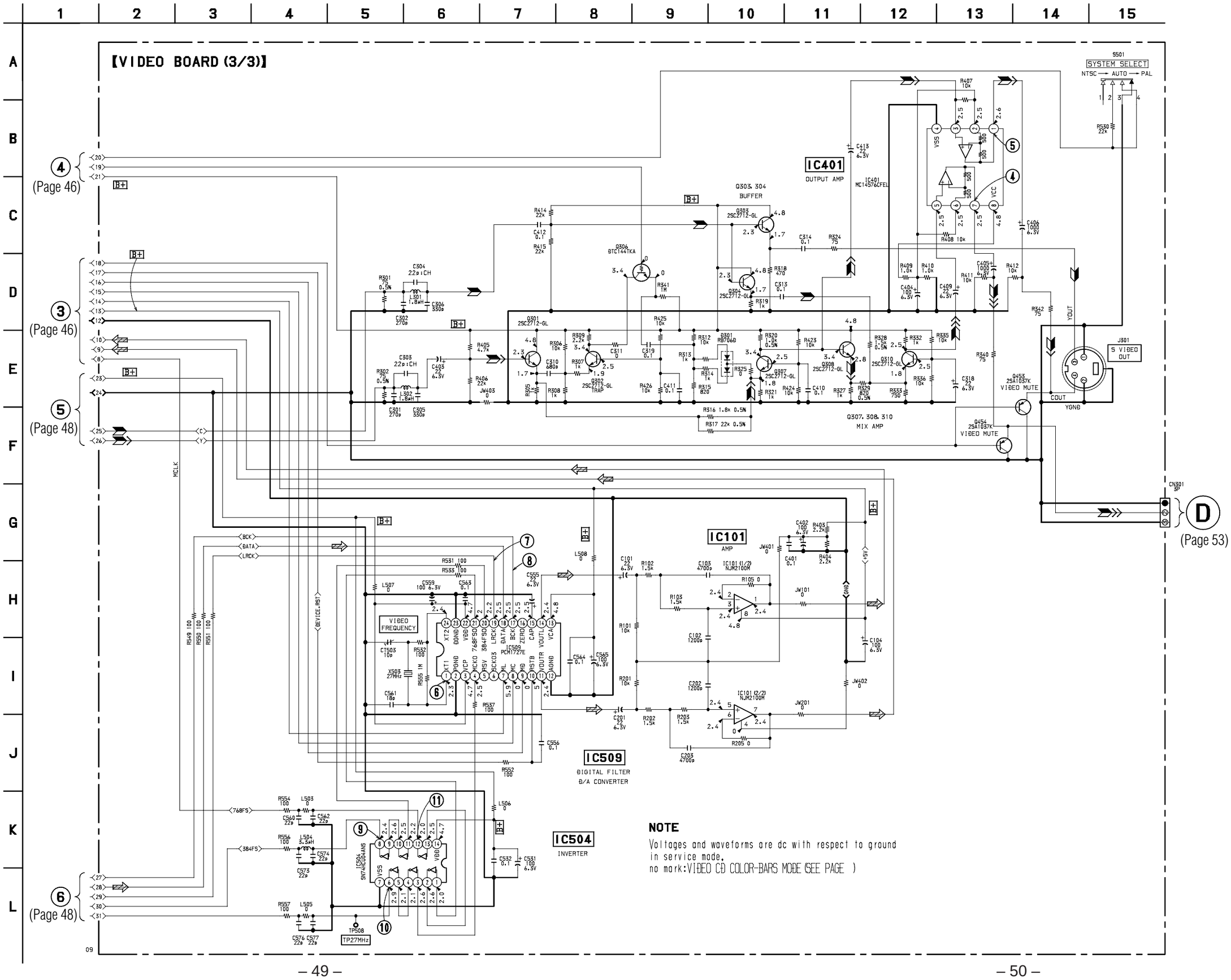
IC506
ROM

IC507
MB814260-70PJER

IC506
LC372100PM

7-10. SCHEMATIC DIAGRAM – VIDEO (3/3) SECTION –

- See page 34 for Waveforms.
- See page 43 for Printed Wiring Board.

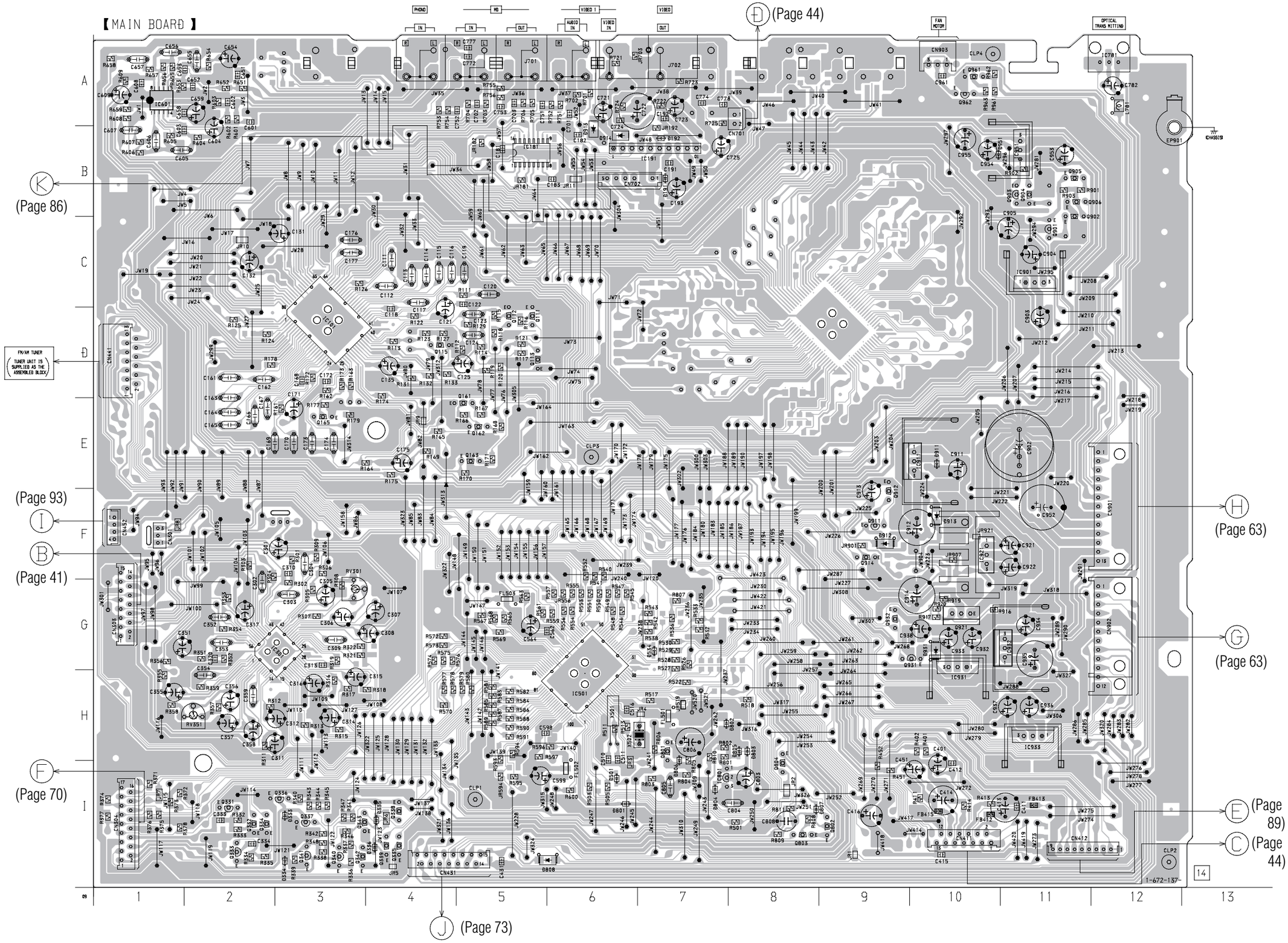


- **Semiconductor Location**

Ref. No.	Location
D333	I-3
D334	I-3
D335	I-4
D336	I-4
D501	I-6
D534	G-7
D544	G-7
D802	H-8
D803	H-8
D804	H-7
D805	H-8
D806	H-7
D807	I-9
D808	I-6
D911	E-10
D912	F-9
D913	F-10
D931	G-10
D951	B-11
IC101	D-3
IC201	C-9
IC181	B-5
IC191	B-7
IC301	G-3
IC501	H-6
IC601	A-1
IC901	C-11
IC931	G-10
IC932	G-11
IC933	H-11
IC951	B-11
IC801	I-8
IC911	E-10
Q111	D-5
Q112	D-5
Q113	D-5
Q115	D-4
Q161	E-5
Q162	E-5
Q163	E-5
Q165	E-3
Q271	C-7
Q281	C-7
Q331	I-2
Q332	I-2
Q333	I-2
Q334	I-2
Q335	I-4
Q336	I-3
Q337	I-3
Q338	I-4
Q339	I-4
Q340	I-3
Q341	I-3
Q342	I-3
Q343	I-3
Q801	H-7
Q802	I-9
Q803	I-8
Q804	I-8
Q901	C-11
Q902	B-11
Q903	B-11
Q904	B-11
Q905	B-11
Q906	B-11
Q911	F-9
Q912	F-9
Q913	F-9
Q914	F-9
Q931	G-10
Q932	G-9
Q961	A-10
Q962	A-10

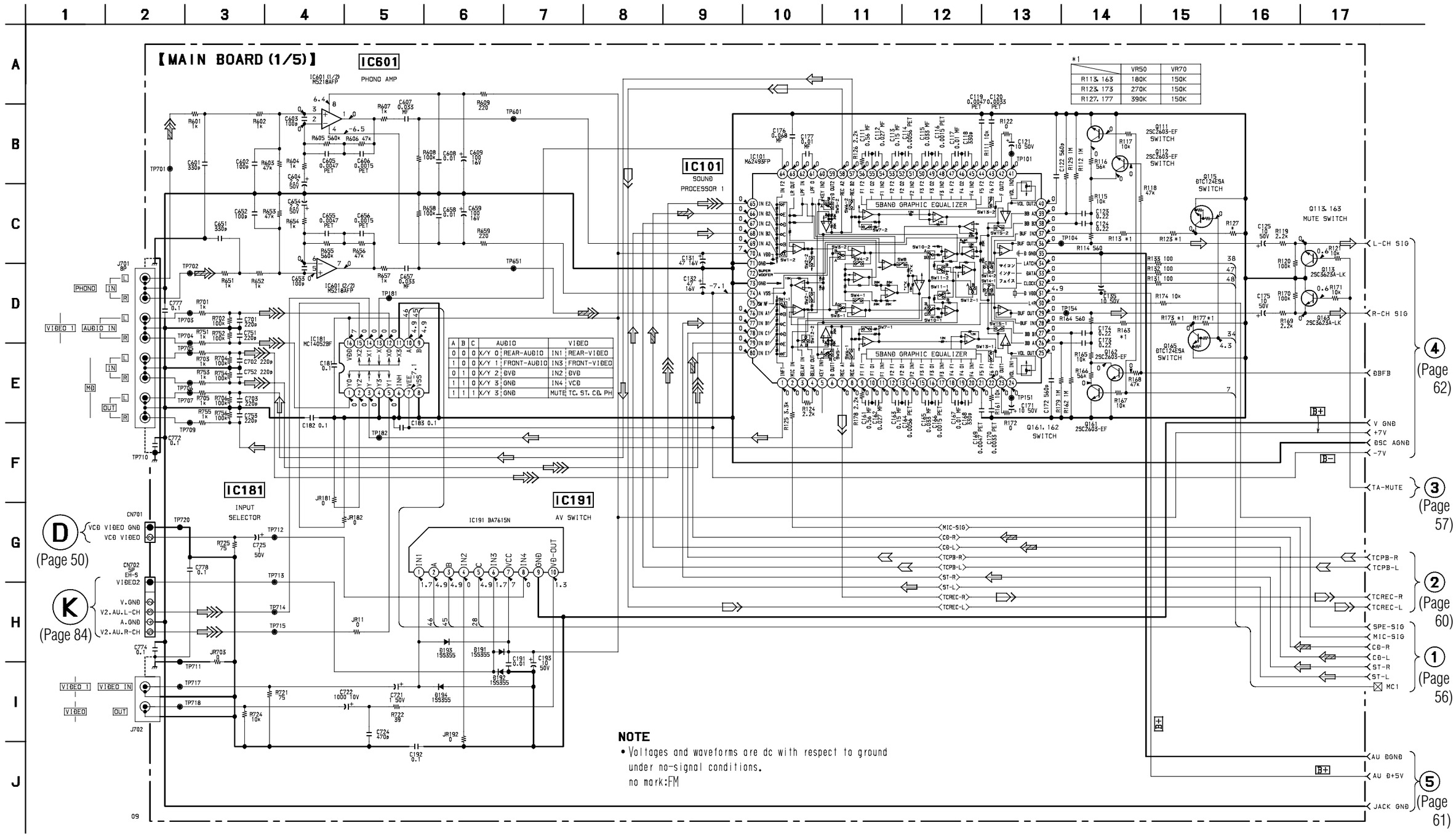
7-11. PRINTED WIRING BOARD – MAIN SECTION –

- **See page 18 for Circuit Boards Location.**



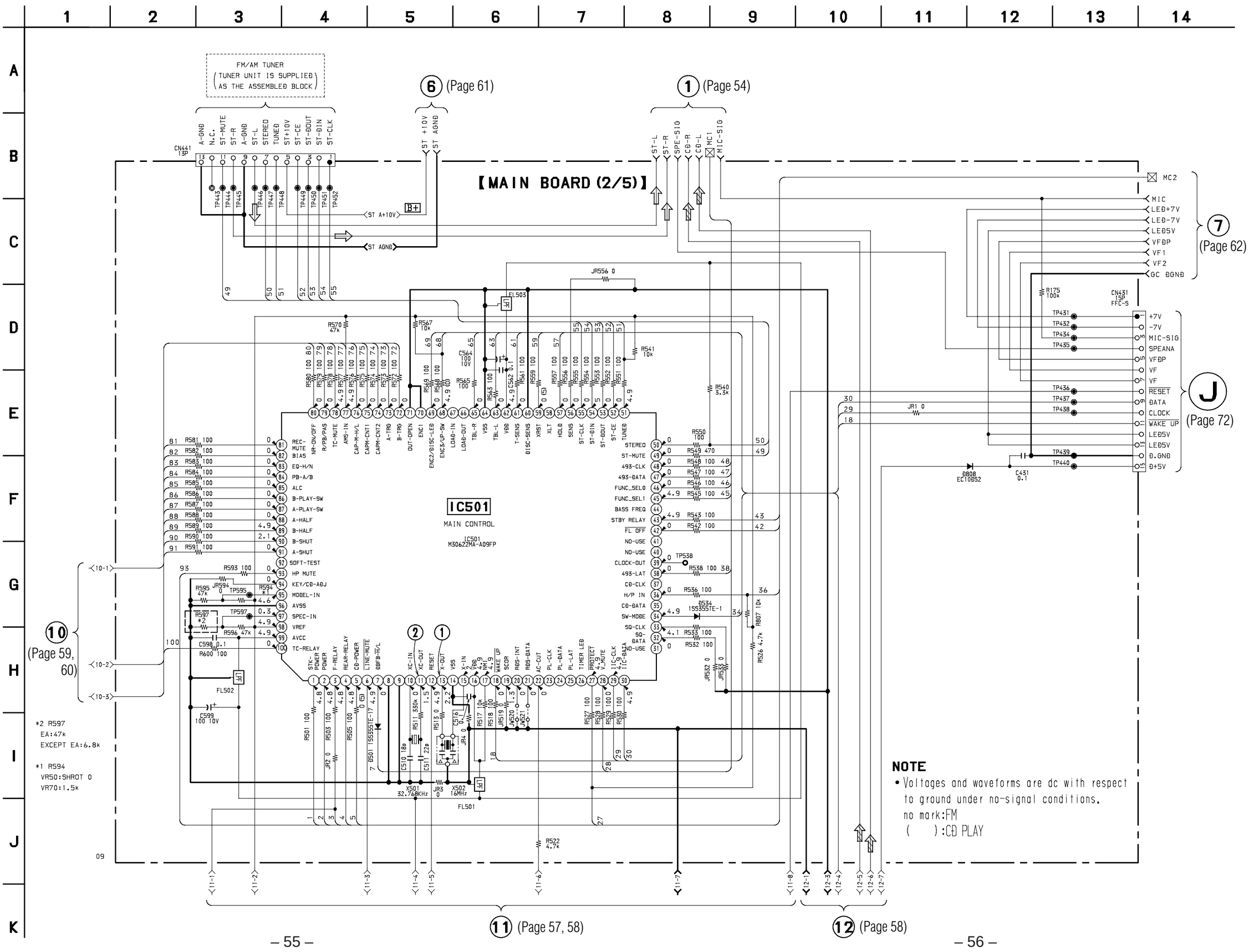
7-12. SCHEMATIC DIAGRAM – MAIN (1/5) SECTION –

• See page 99 for IC Block Diagrams.



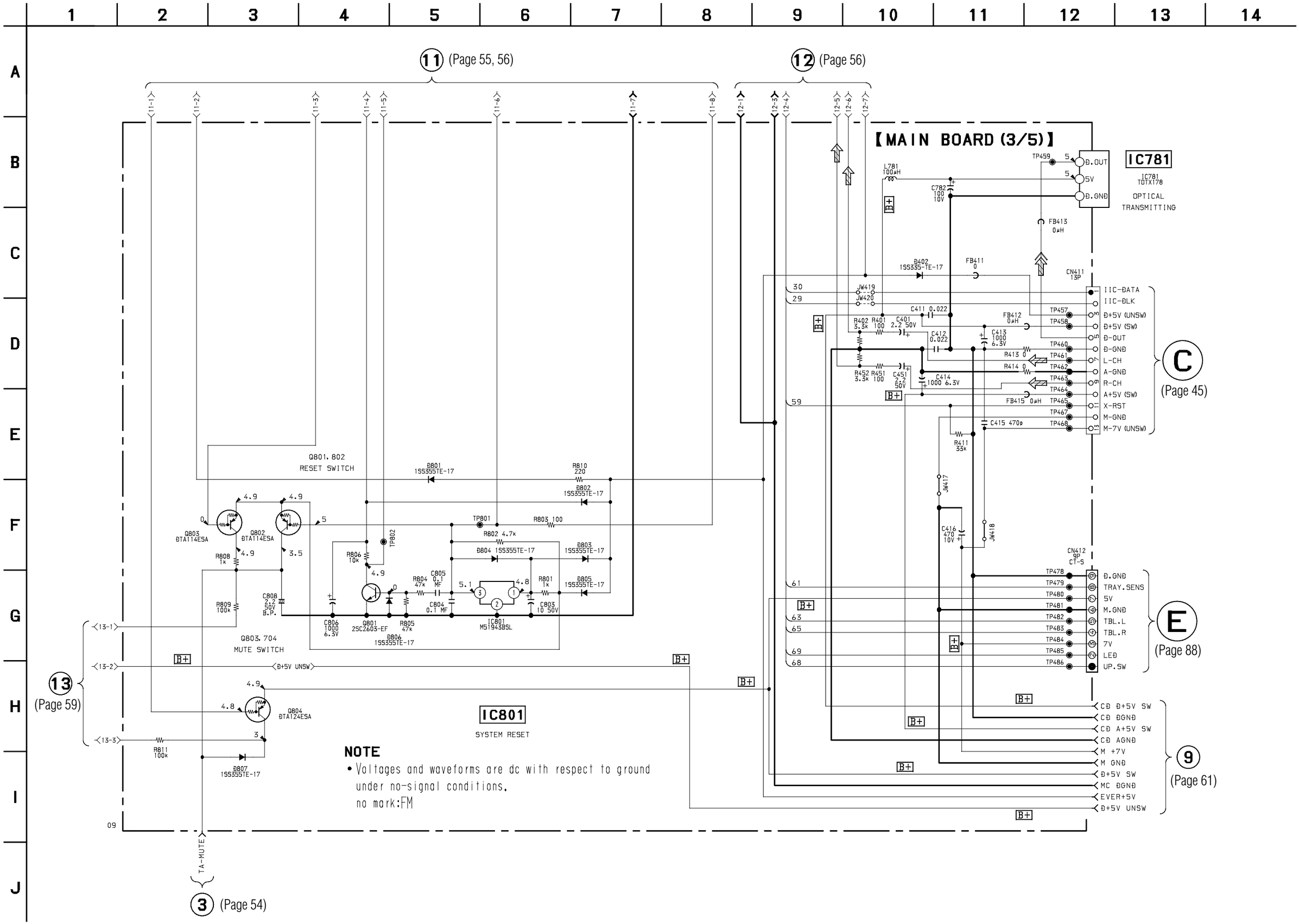
7-13. SCHEMATIC DIAGRAM – MAIN (2/5) SECTION –

- See page 34 for Waveforms.
- See page 51 for Printed Wiring Board.
- See page 108 for IC Pin Functions.



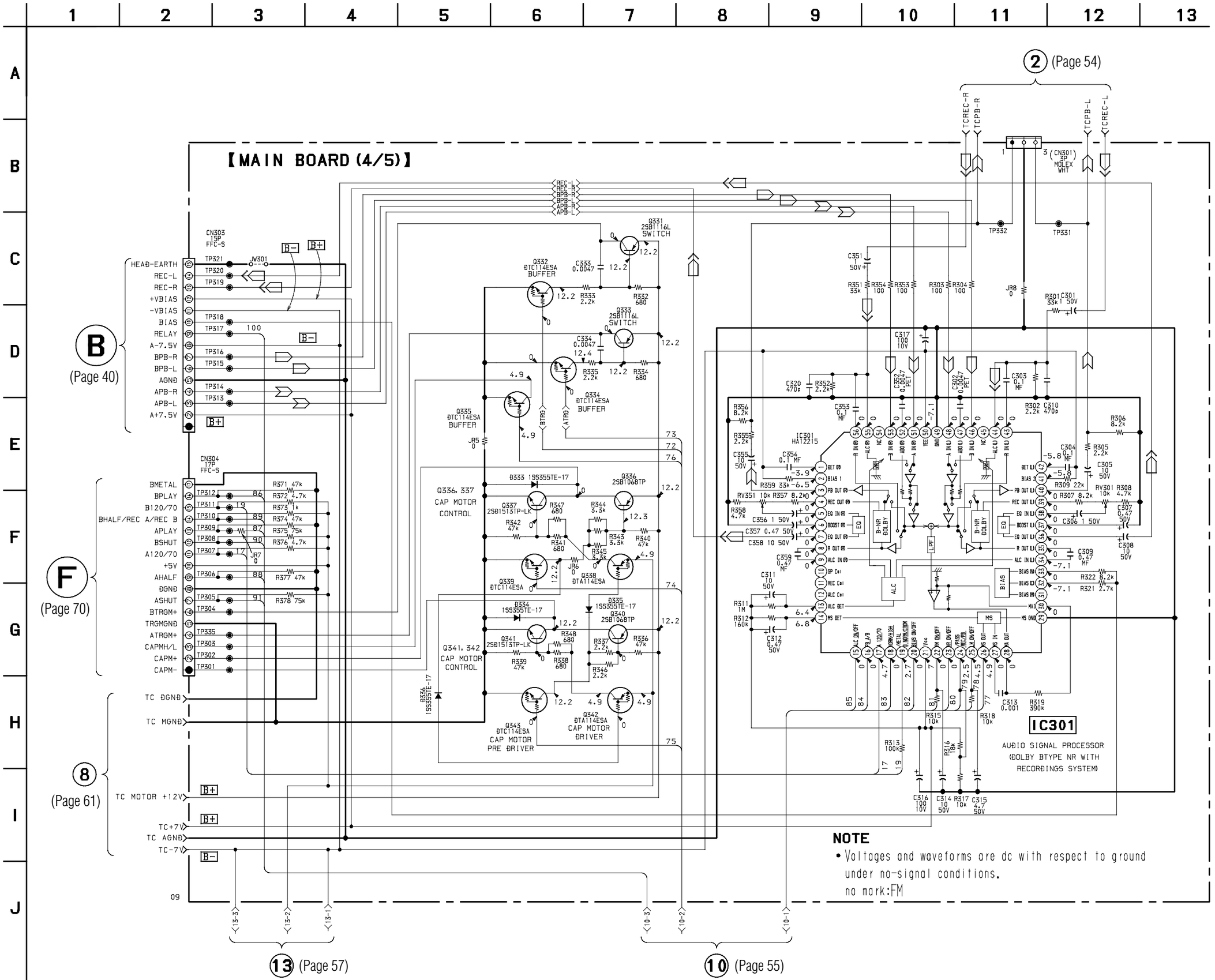
7-14. SCHEMATIC DIAGRAM – MAIN (3/5) SECTION –

• See page 51 for Printed Wiring Board.



7-15. SCHEMATIC DIAGRAM – MAIN (4/5) SECTION –

• See page 51 for Printed Wiring Board.



NOTE

- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  no mark:FM

7-16. SCHEMATIC DIAGRAM – MAIN (5/5) SECTION –

• See page 51 for Printed Wiring Board.

【MAIN BOARD (5/5)】

NOTE

• Voltages and waveforms are dc with respect to ground under no-signal conditions.
no mark:FM

IC911 +5V REG
IC921 +5V REG
IC901 +7V REG
IC951 -7V REG
IC931 +10V REG
IC933 +7V REG
IC932 +12V REG

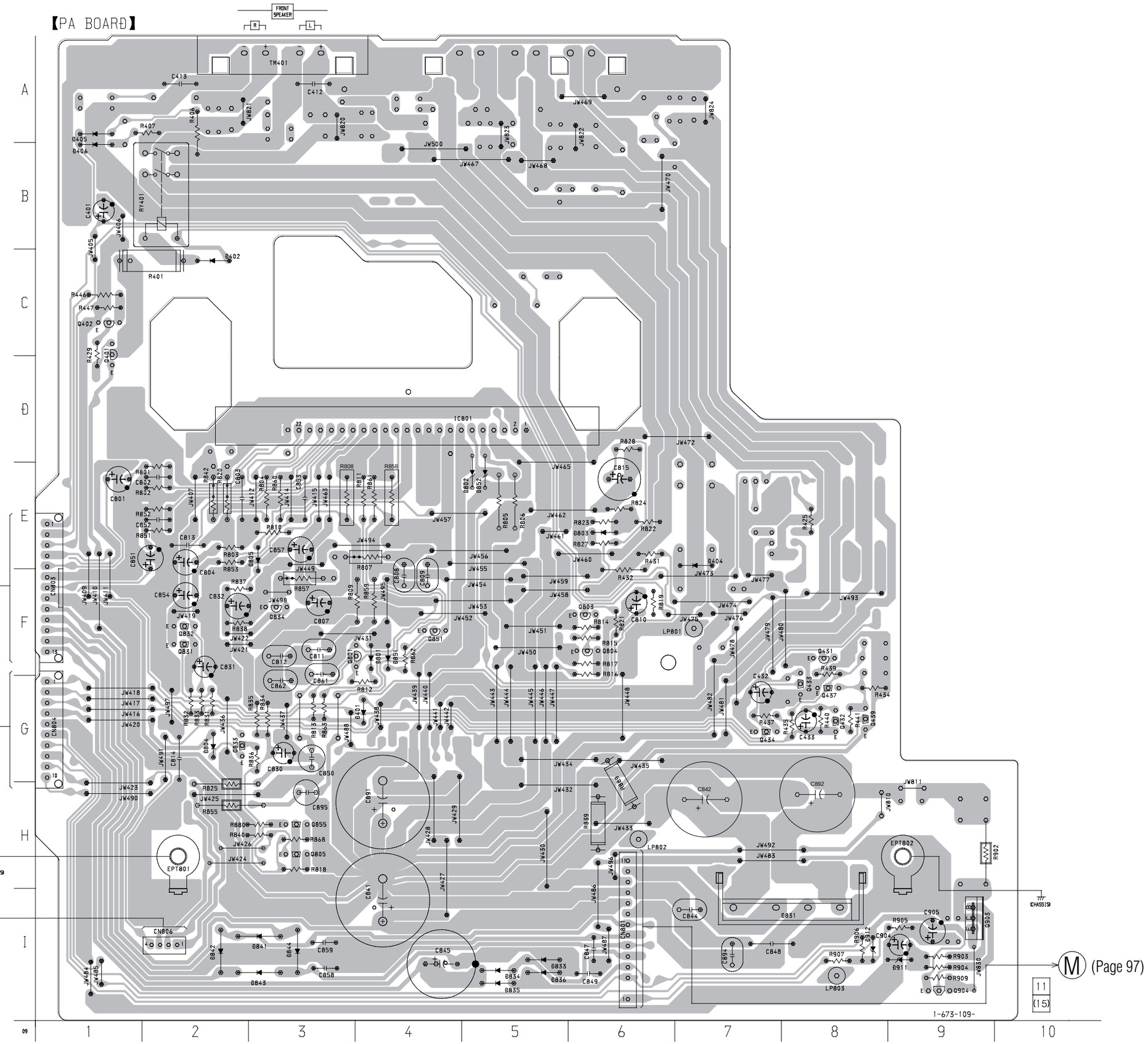
9 (Page 58): CD D+5V SW, CD DGND, CD A+5V SW, CD AGND, M +7V, M GND, D+5V SW, MC DGND, EVER+5V, D+5V UNSW
6 (Page 55): RDS D+5V UNSW, ST +10V, ST AGND, ST A+7V, ST A-7V
8 (Page 59): TC DGND, TC MGND, TC MOTOR +12V, TC+7V, TC AGND, TC-7V
5 (Page 54): AU DGND, AU D+5V, PL A+10V, PL AGND, JACK GND
I (Page 92): MIC GND, -7V, MIC, +7V
4 (Page 54): L-CH SIG, R-CH SIG, DBFB, V GND, +7V, DSC AGND, -7V, MIC
7 (Page 56): LED+7V, LED-7V, LED5V, VFDP, VF2, VF1, GC DGND, MC2
H (Page 65): PL-RELAY, F-RELAY, FAN.DET, DBFB, LCH-IN, A.GND, RCH-IN, POWERGND, UN-12V, AC.GND, UN+12V, 17VGND, +UNREG.17V
G (Page 65): +7V, PROTECT, STK POWER, EVER+5V, D.GND, VF (-35V), VF, VF, HP.SW, HP MUTE, ECO, POWER

7-17. PRINTED WIRING BOARD – POWER SECTION –

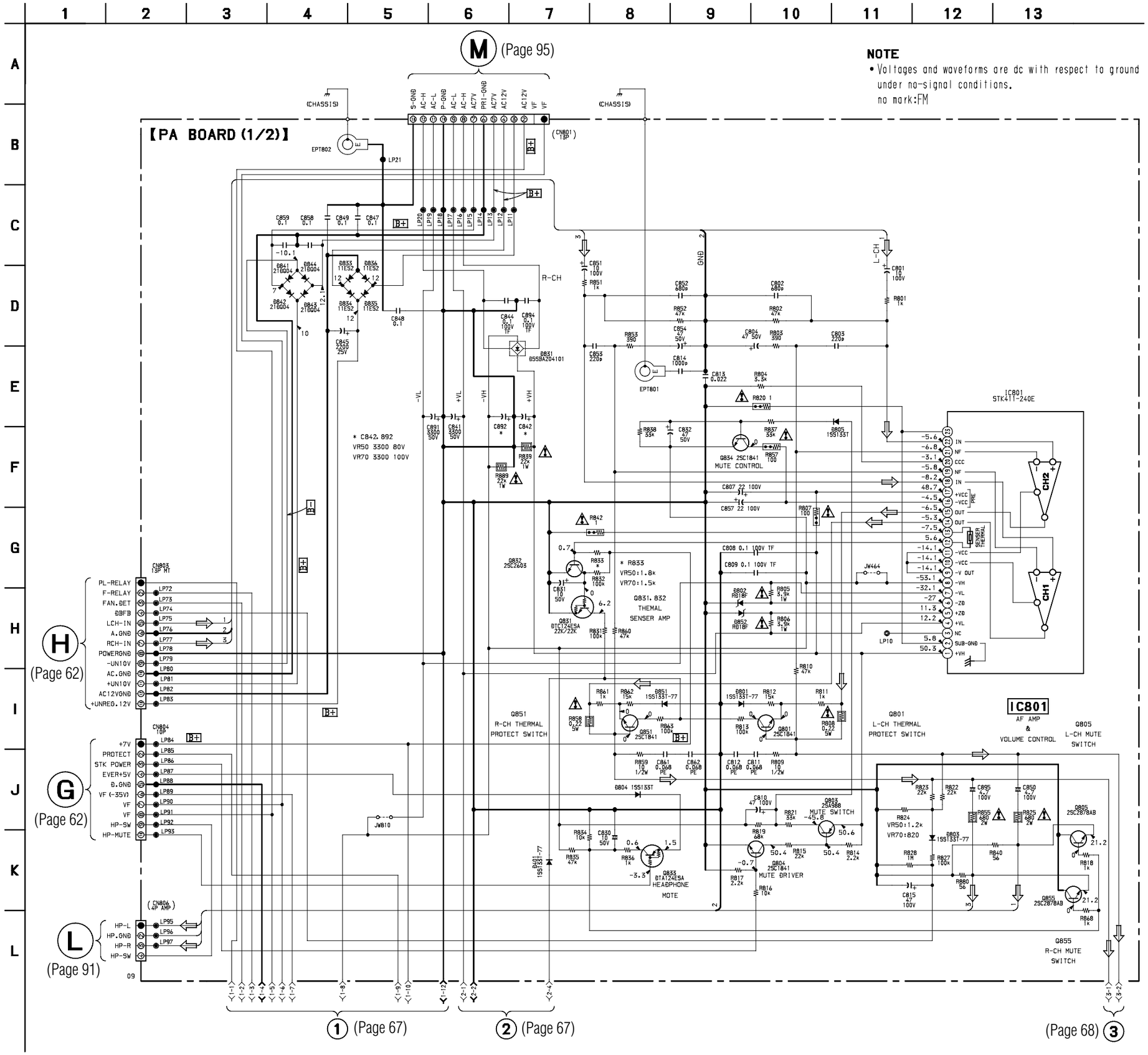
• See page 18 for Circuit Boards Location.

• **Semiconductor Location**

Ref. No.	Location
D401	G-4
D402	C-2
D403	E-8
D405	A-1
D406	B-1
D801	F-4
D802	E-5
D803	E-6
D831	I-8
D833	I-5
D834	I-5
D835	I-5
D836	I-5
D841	I-3
D842	I-2
D843	I-3
D844	I-3
D851	F-4
D852	E-5
D911	I-9
D912	I-8
IC801	D-4
Q401	C-1
Q402	C-1
Q431	F-8
Q432	G-8
Q433	G-8
Q434	G-7
Q437	G-8
Q439	G-8
Q801	F-4
Q803	F-6
Q804	F-6
Q805	H-3
Q831	F-2
Q832	F-2
Q833	G-2
Q834	F-3
Q851	F-4
Q855	H-3
Q903	I-9

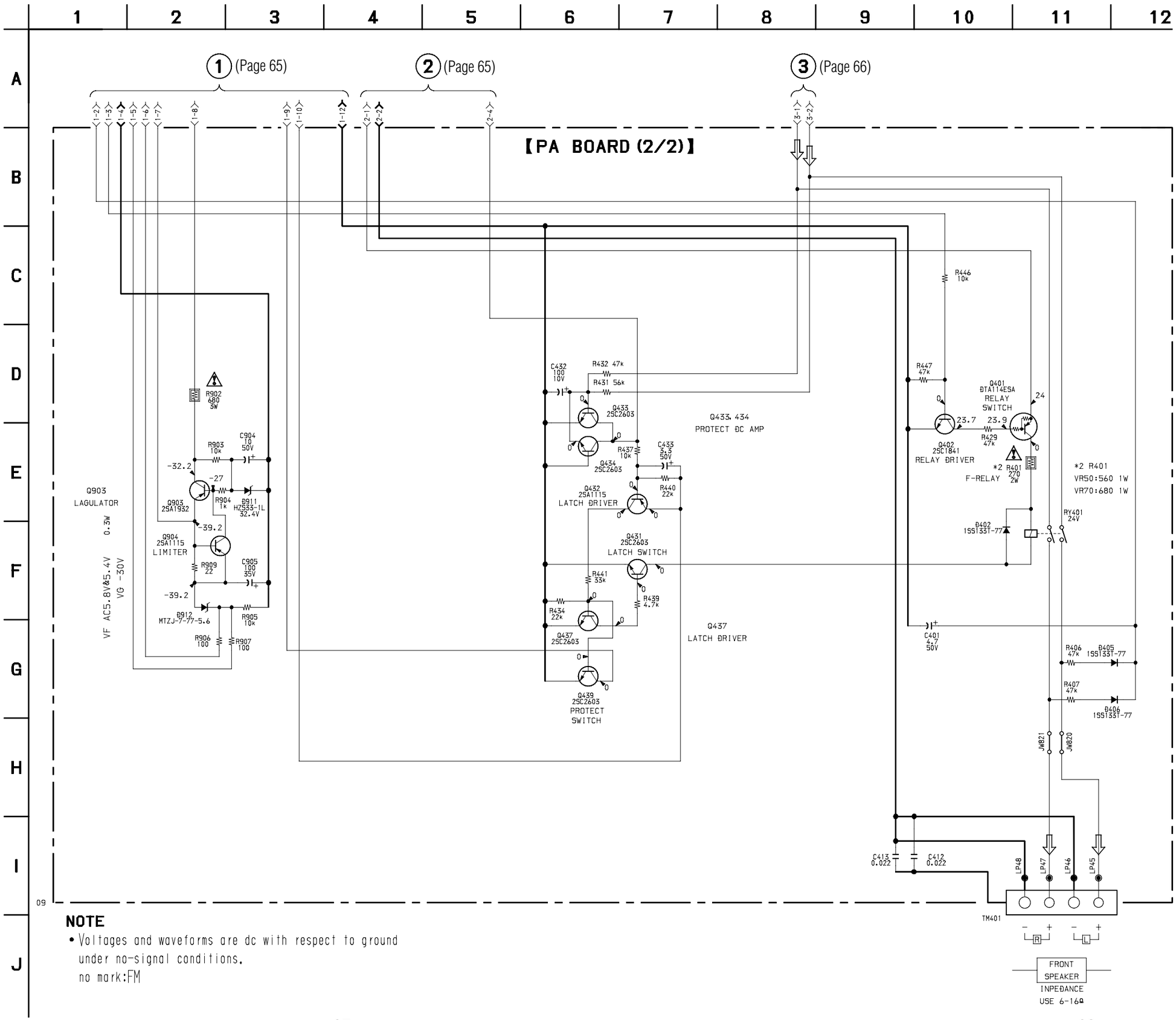


7-18. SCHEMATIC DIAGRAM – POWER (1/2) SECTION –



7-19. SCHEMATIC DIAGRAM – POWER (2/2) SECTION –

• See page 63 for Printed Wiring Board.

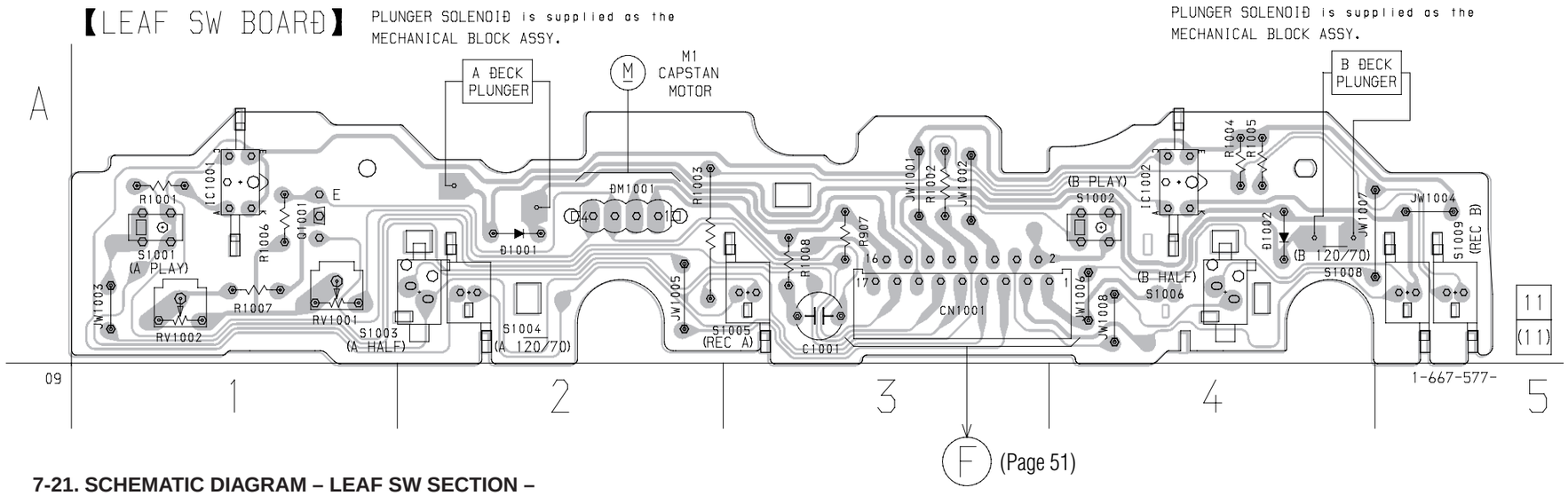


NOTE

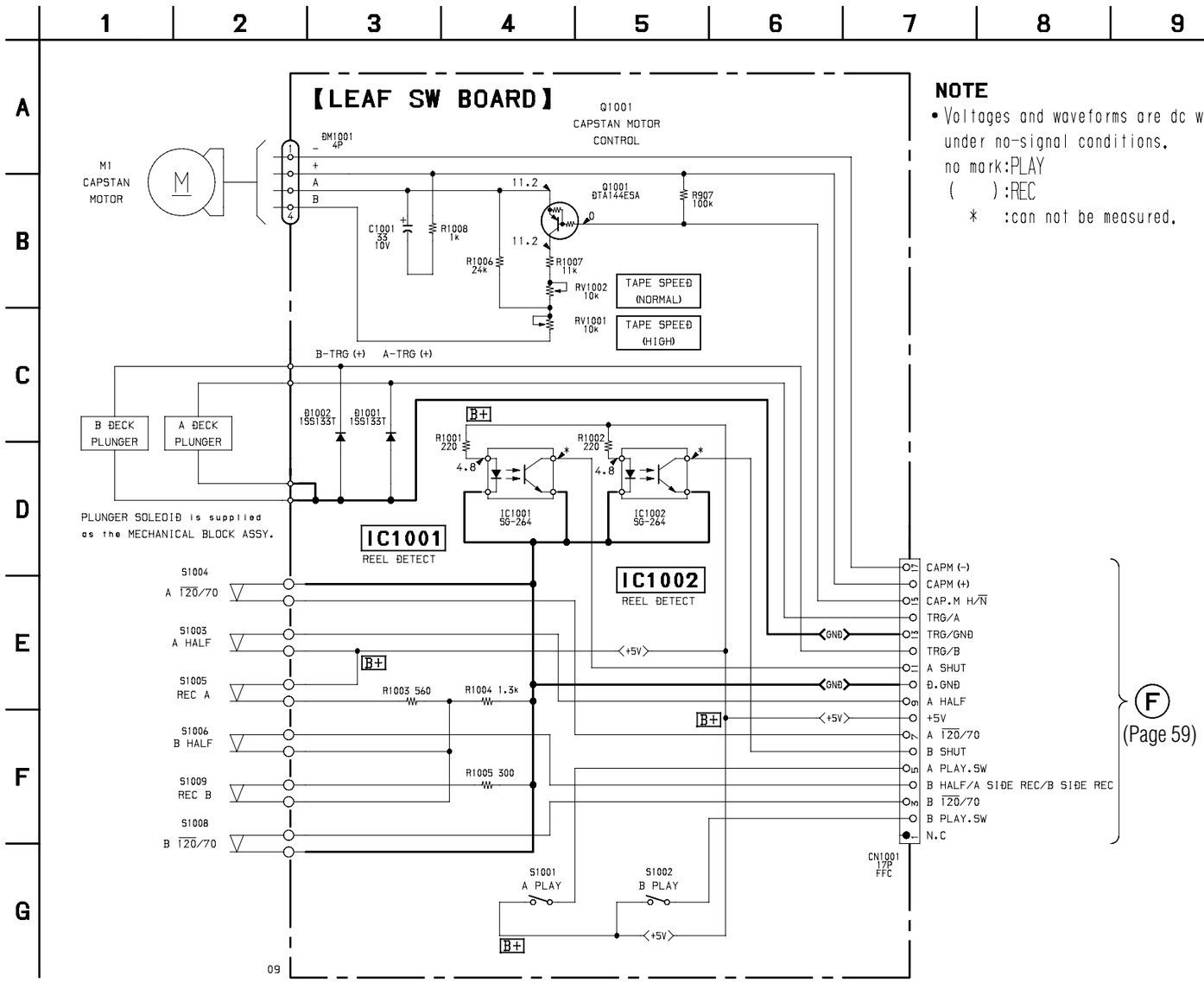
• Voltages and waveforms are dc with respect to ground under no-signal conditions.
no mark:FM

7-20. PRINTED WIRING BOARD – LEAF SW SECTION –

• See page 18 for Circuit Boards Location.



7-21. SCHEMATIC DIAGRAM – LEAF SW SECTION –

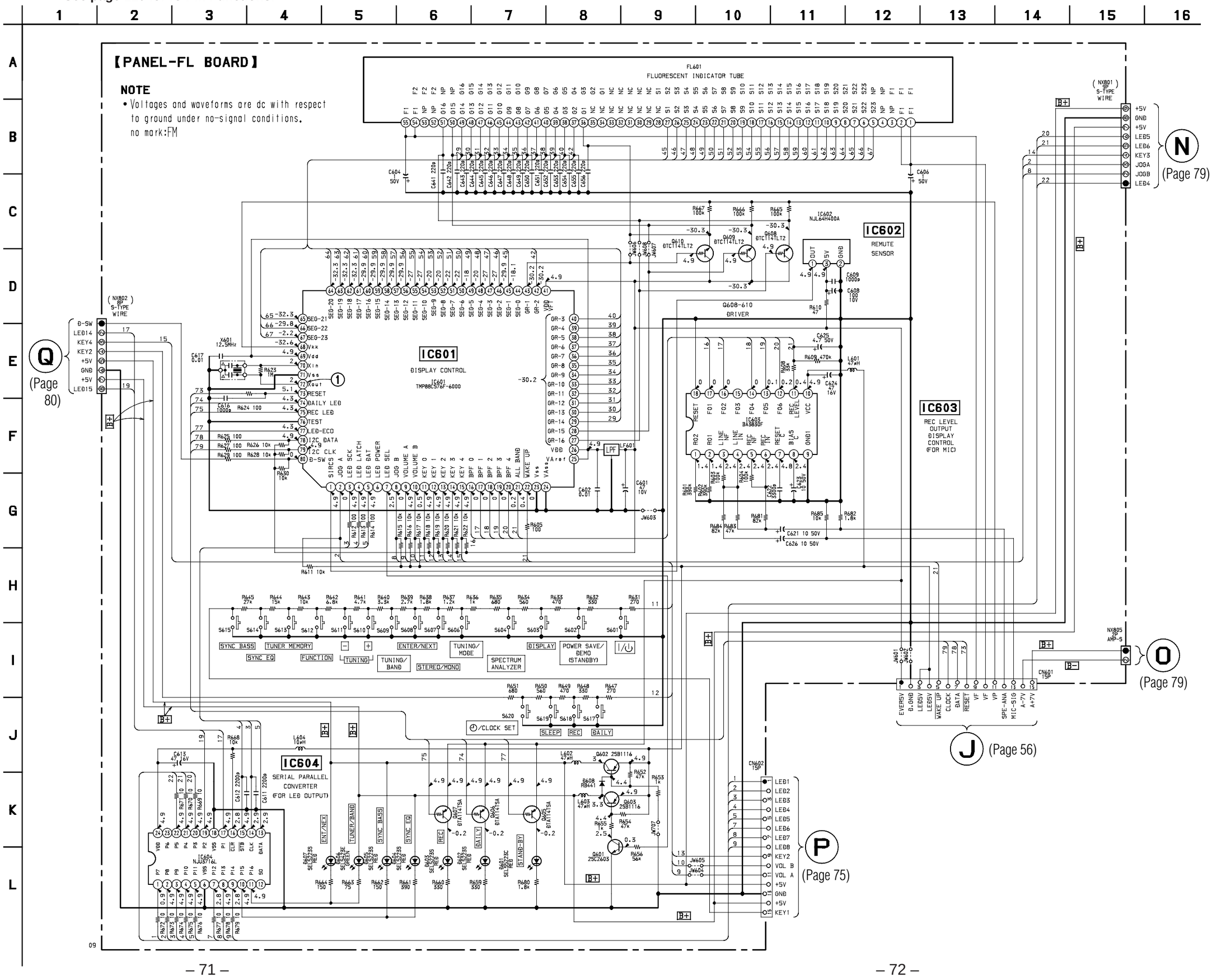


NOTE

- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  no mark:PLAY
  ( ):REC
  * :can not be measured.

7-22. SCHEMATIC DIAGRAM – PANEL FL SECTION –

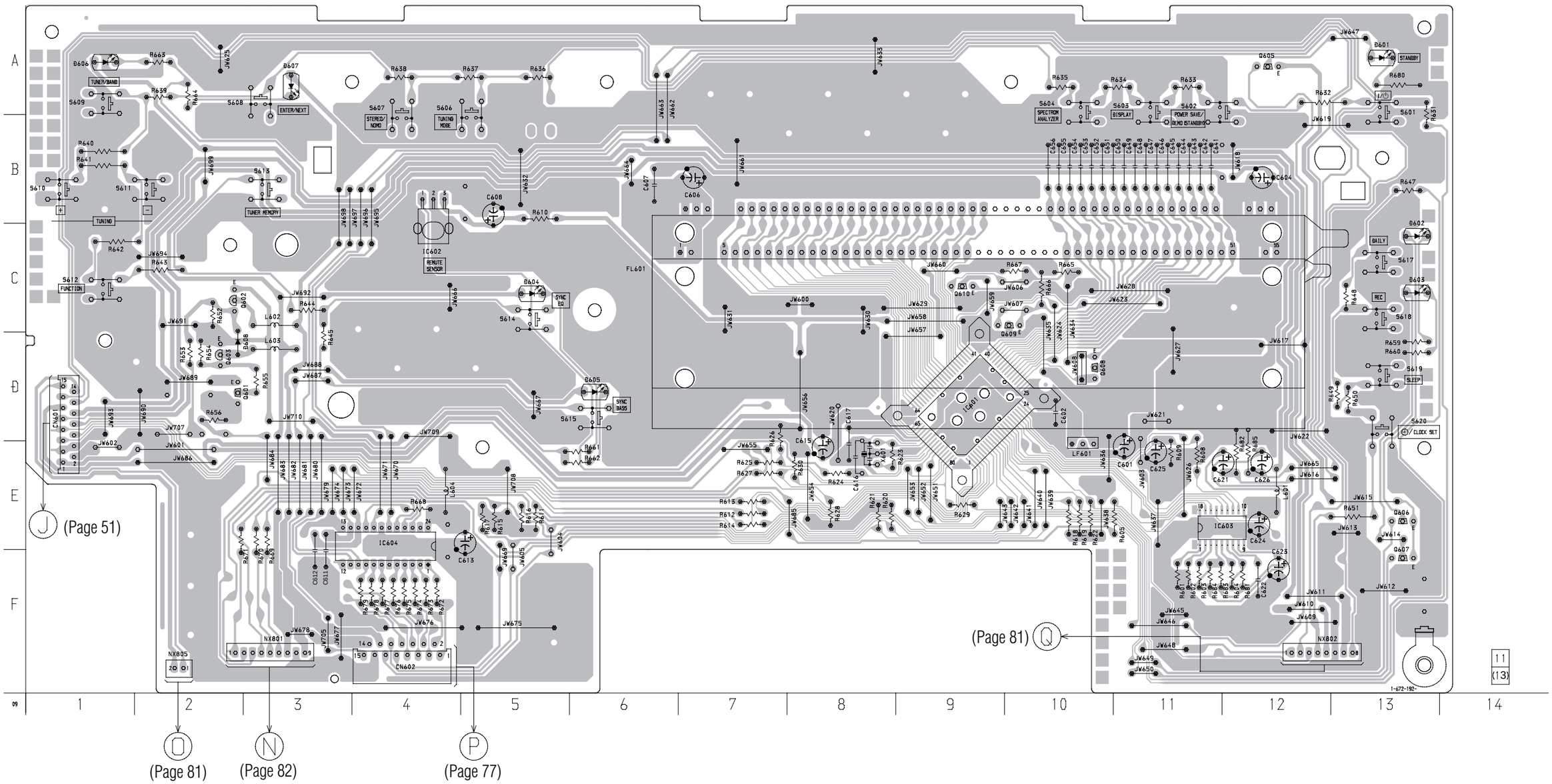
- See page 100 for IC Block Diagrams.
- See page 110 for IC Pin Functions.



7-23. PRINTED WIRING BOARD – PANEL FL SECTION –

• See page 18 for Circuit Boards Location.

【PANEL FL BOARD】

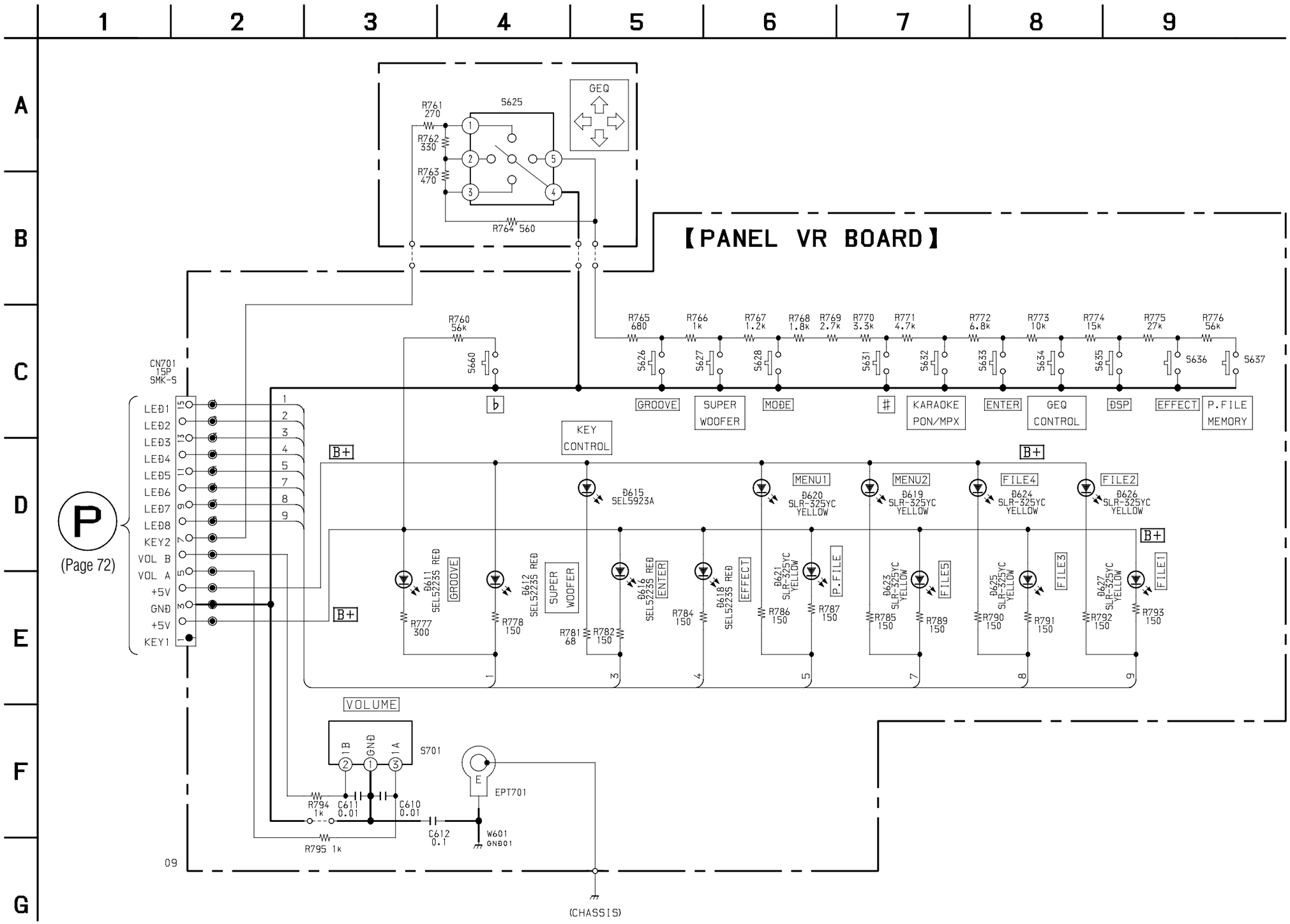


• **Semiconductor Location**

Ref. No.	Location	Ref. No.	Location
D601	A-13	IC604	E-4
D602	C-13		
D603	C-13	Q601	D-2
D604	C-5	Q602	C-2
D605	D-6	Q603	D-2
D606	A-1	Q605	A-12
D607	A-3	Q606	E-13
D608	D-2	Q607	F-13
		Q608	D-10
IC601	D-9	Q609	C-10
IC602	C-4	Q610	C-9
IC603	E-12		

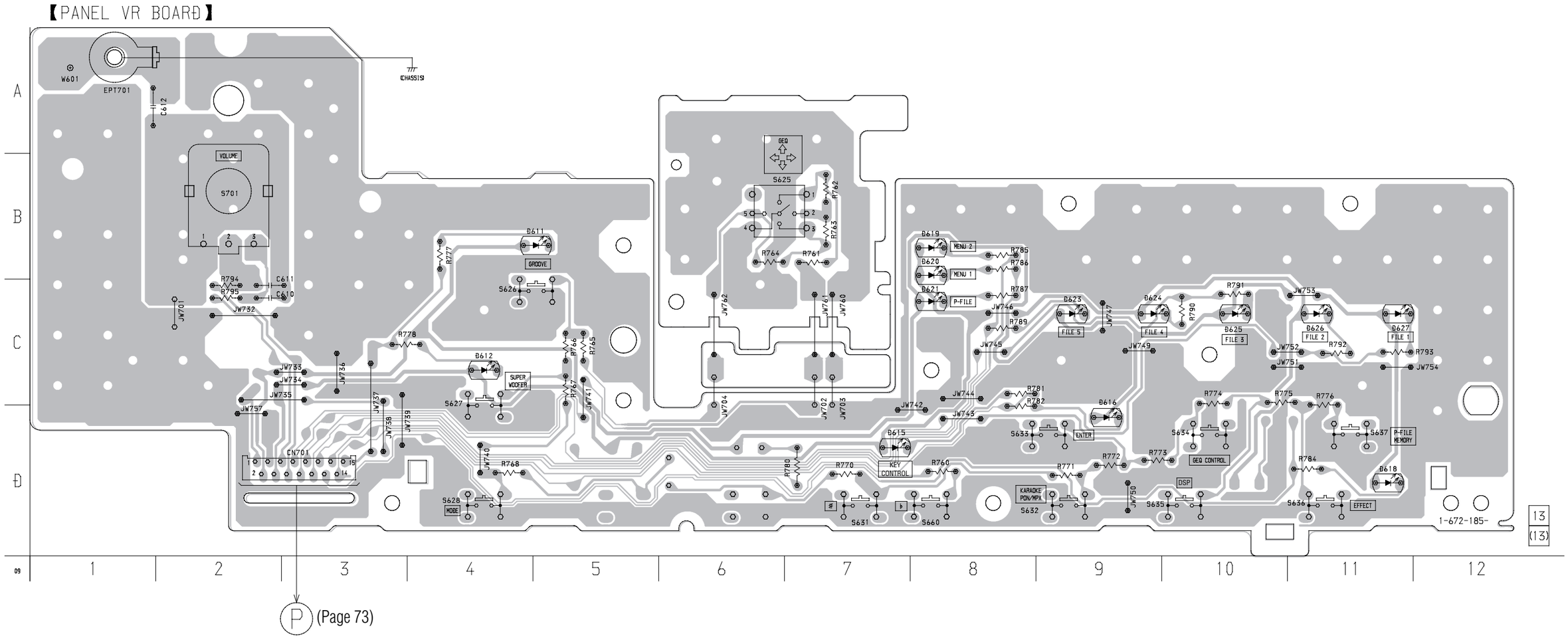
7-24. SCHEMATIC DIAGRAM – PANEL VR SECTION –

• See page 99 for IC Block Diagrams.



7-25. PRINTED WIRING BOARD – PANEL VR SECTION –

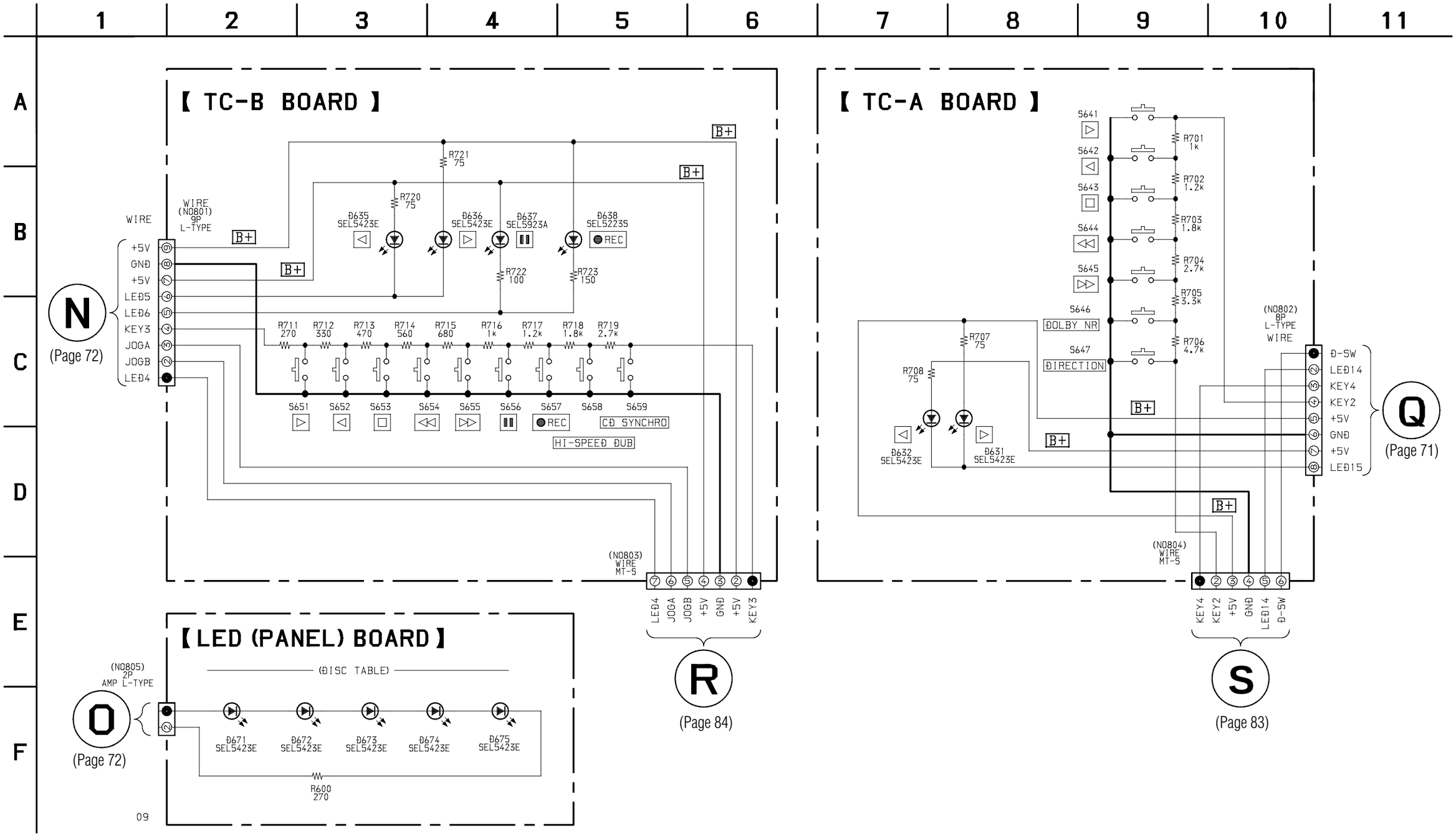
• See page 18 for Circuit Boards Location.



• Semiconductor Location

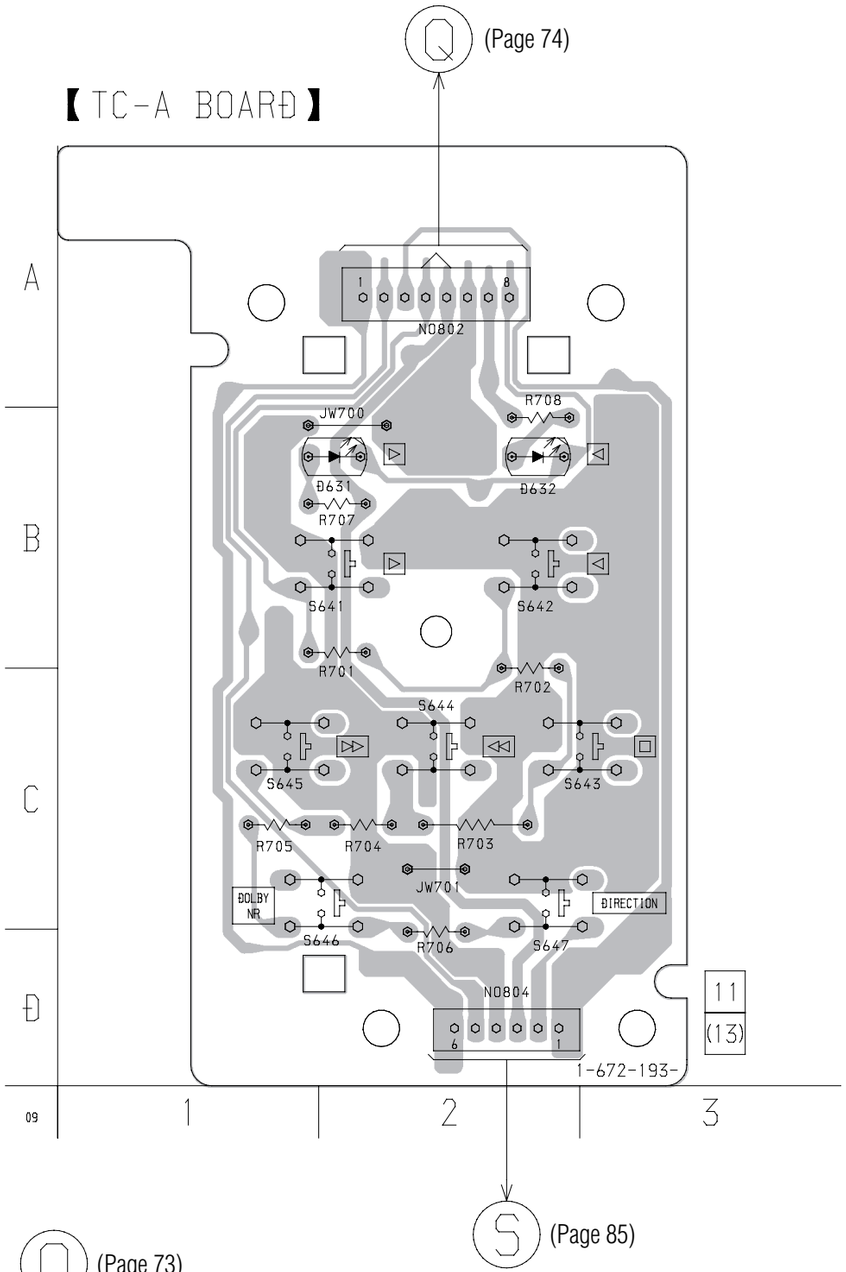
Ref. No.	Location
D611	B-5
D612	C-4
D613	D-5
D617	D-10
D618	D-11
D619	B-8
D620	B-8
D621	C-8
D623	C-9
D624	C-9
D625	C-10
D626	C-11
D627	C-11

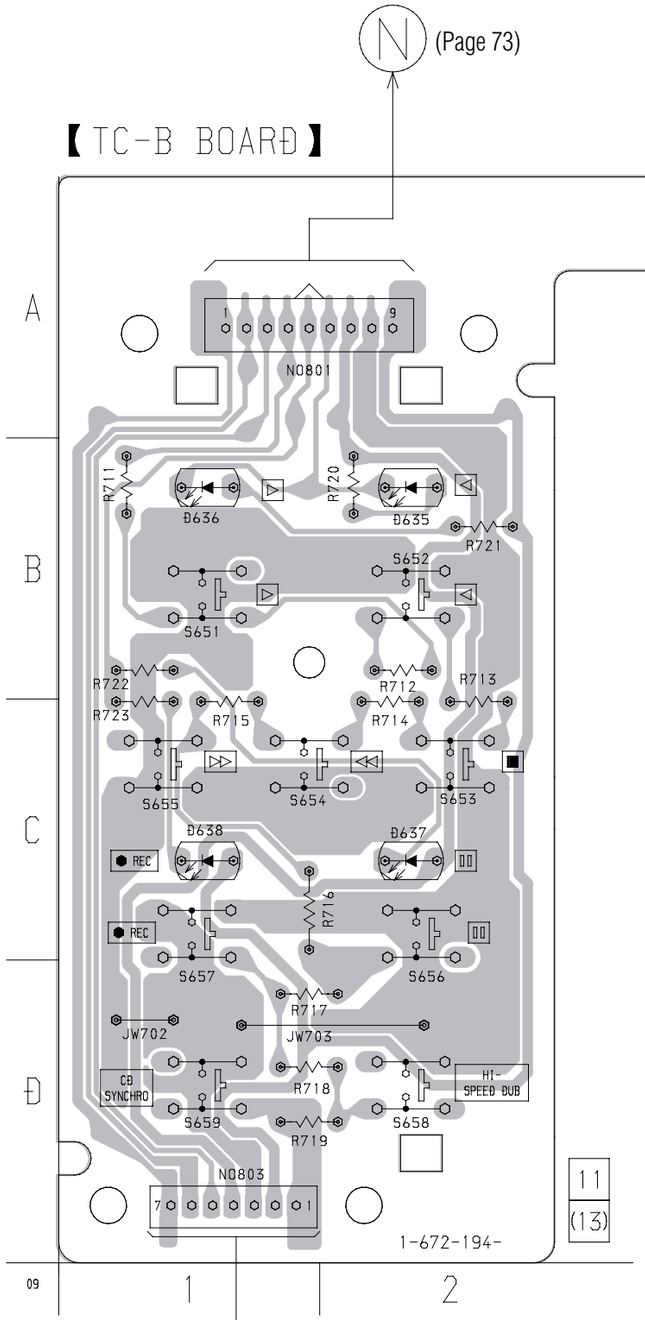
7-26. SCHEMATIC DIAGRAM – TC PANEL SECTION –

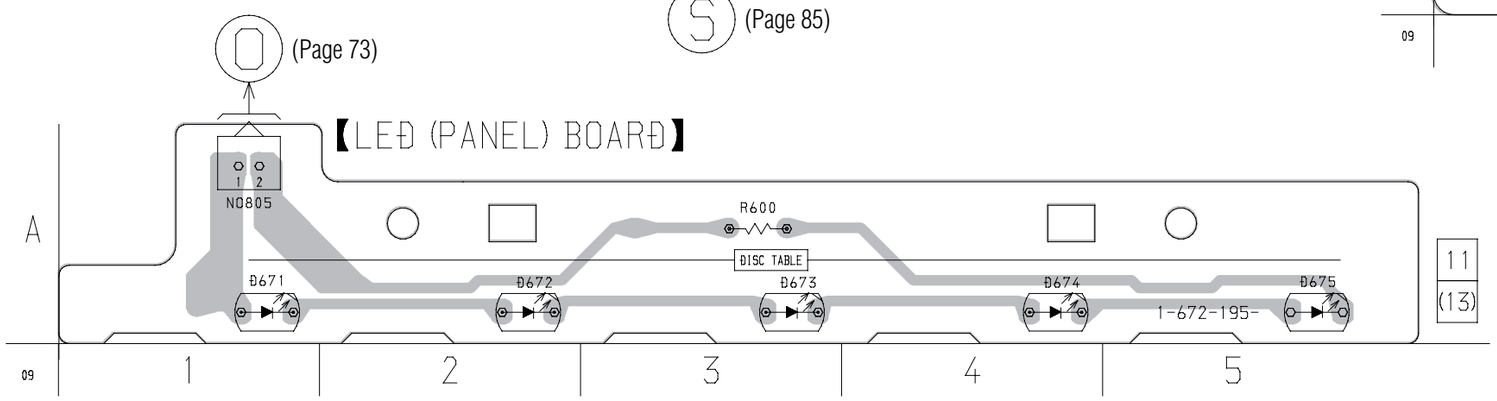


7-27. PRINTED WIRING BOARD – TC PANEL SECTION –

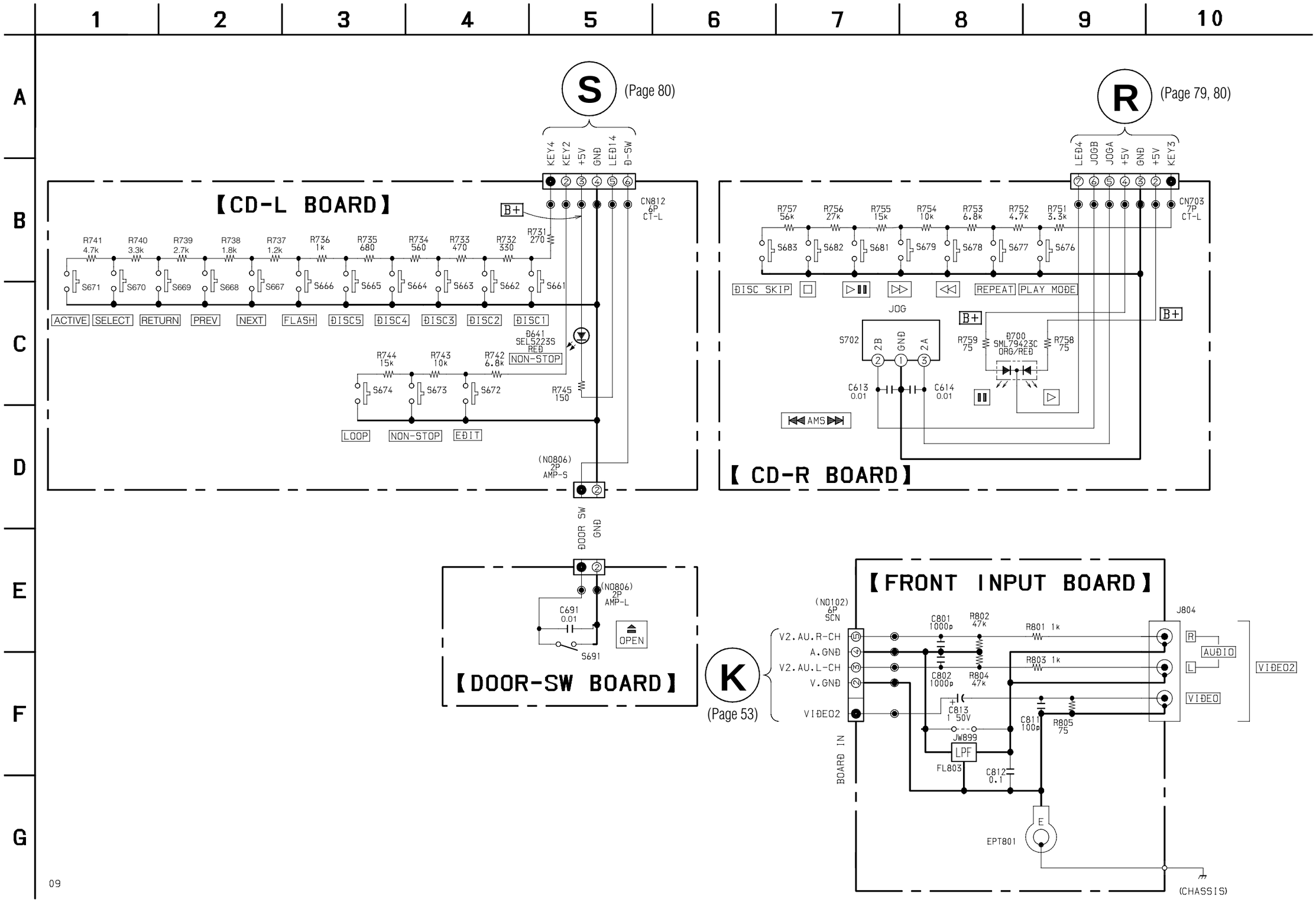
• See page 18 for Circuit Boards Location.







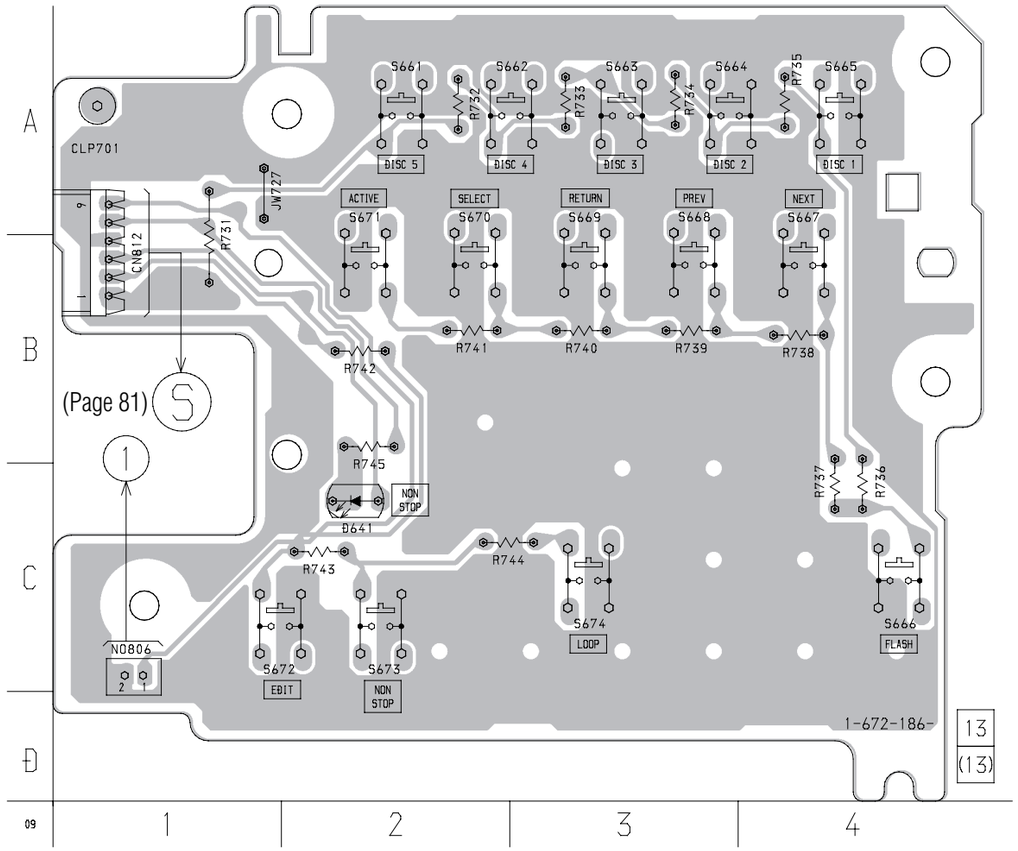
7-28. SCHEMATIC DIAGRAM – CD PANEL SECTION –



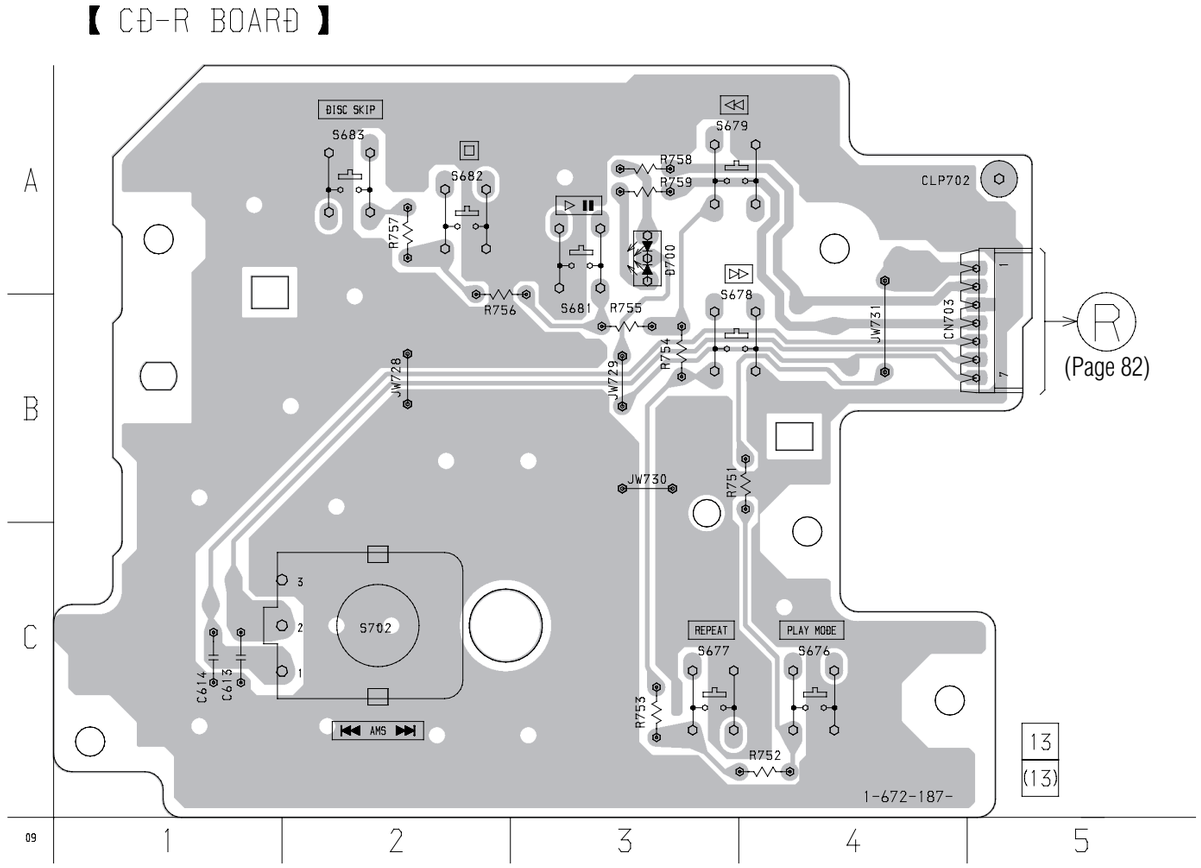
7-29. PRINTED WIRING BOARD – CD PANEL SECTION –

• See page 18 for Circuit Boards Location.

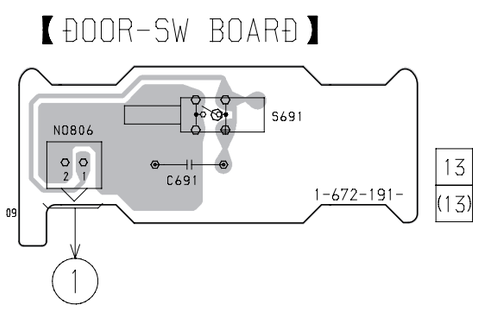
【CD-L BOARD】



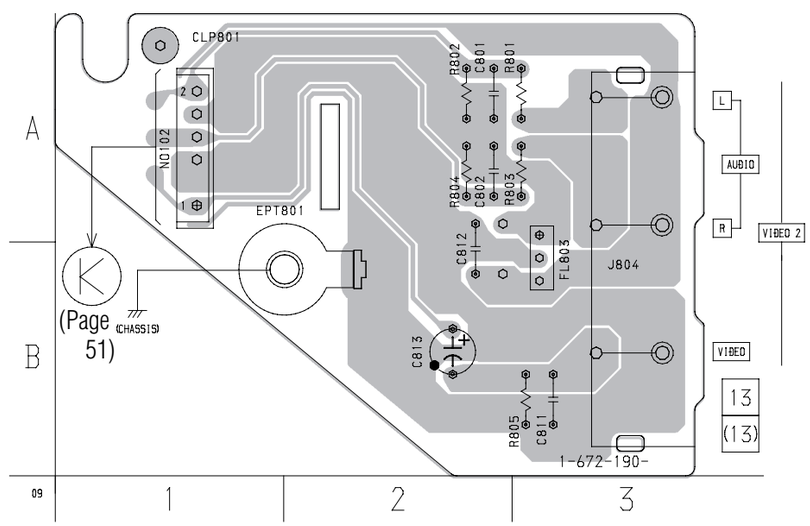
【CD-R BOARD】



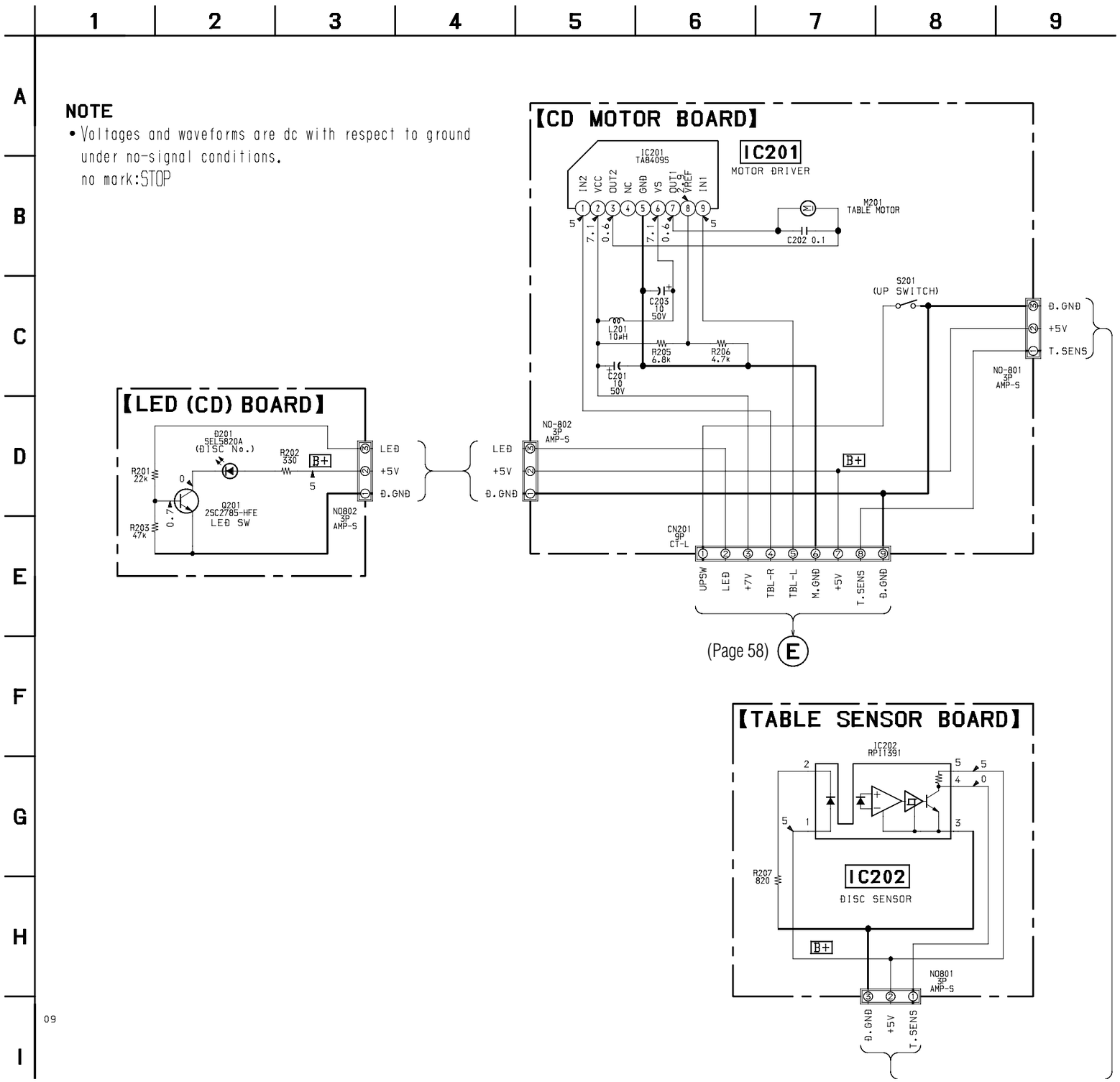
【DOOR-SW BOARD】



【FRONT INPUT BOARD】



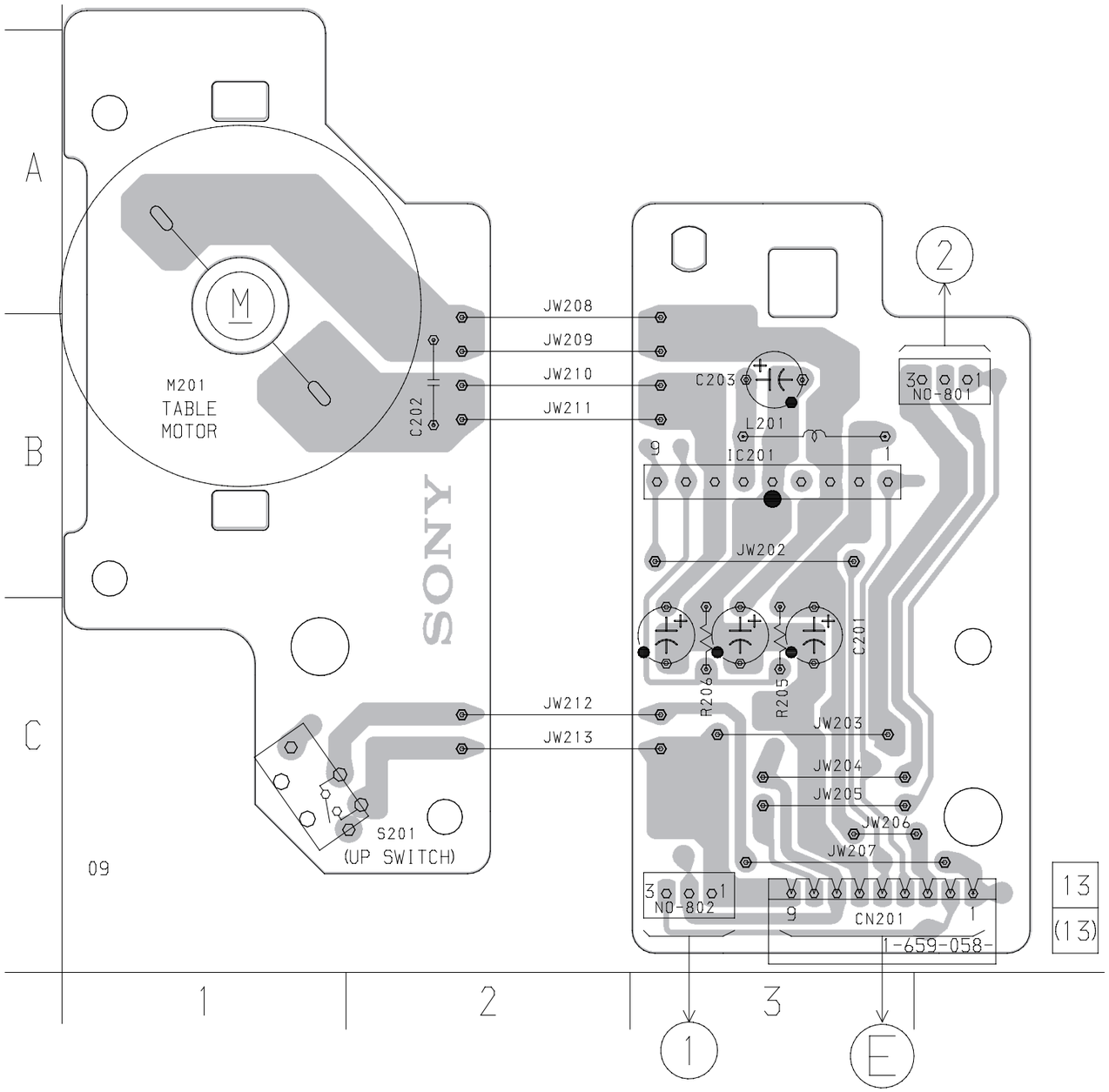
7-30. SCHEMATIC DIAGRAM – CD MOTOR SECTION –



7-31. PRINTED WIRING BOARD – CD MOTOR SECTION –

• See page 18 for Circuit Boards Location.

【CD MOTOR BOARD】



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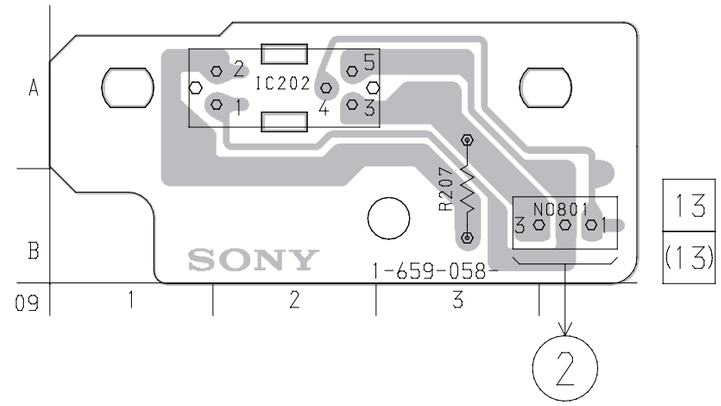
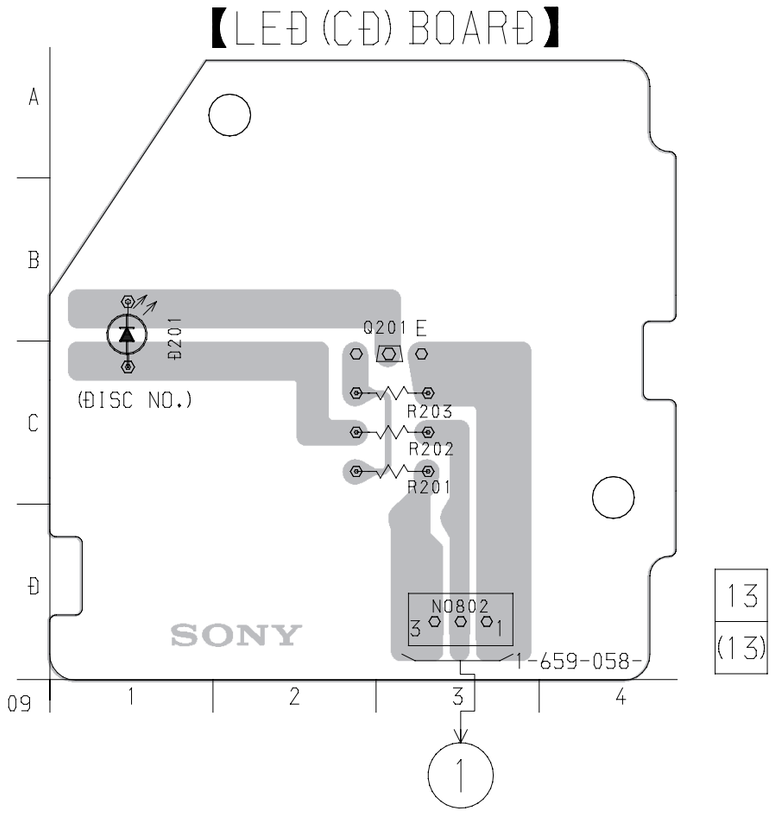
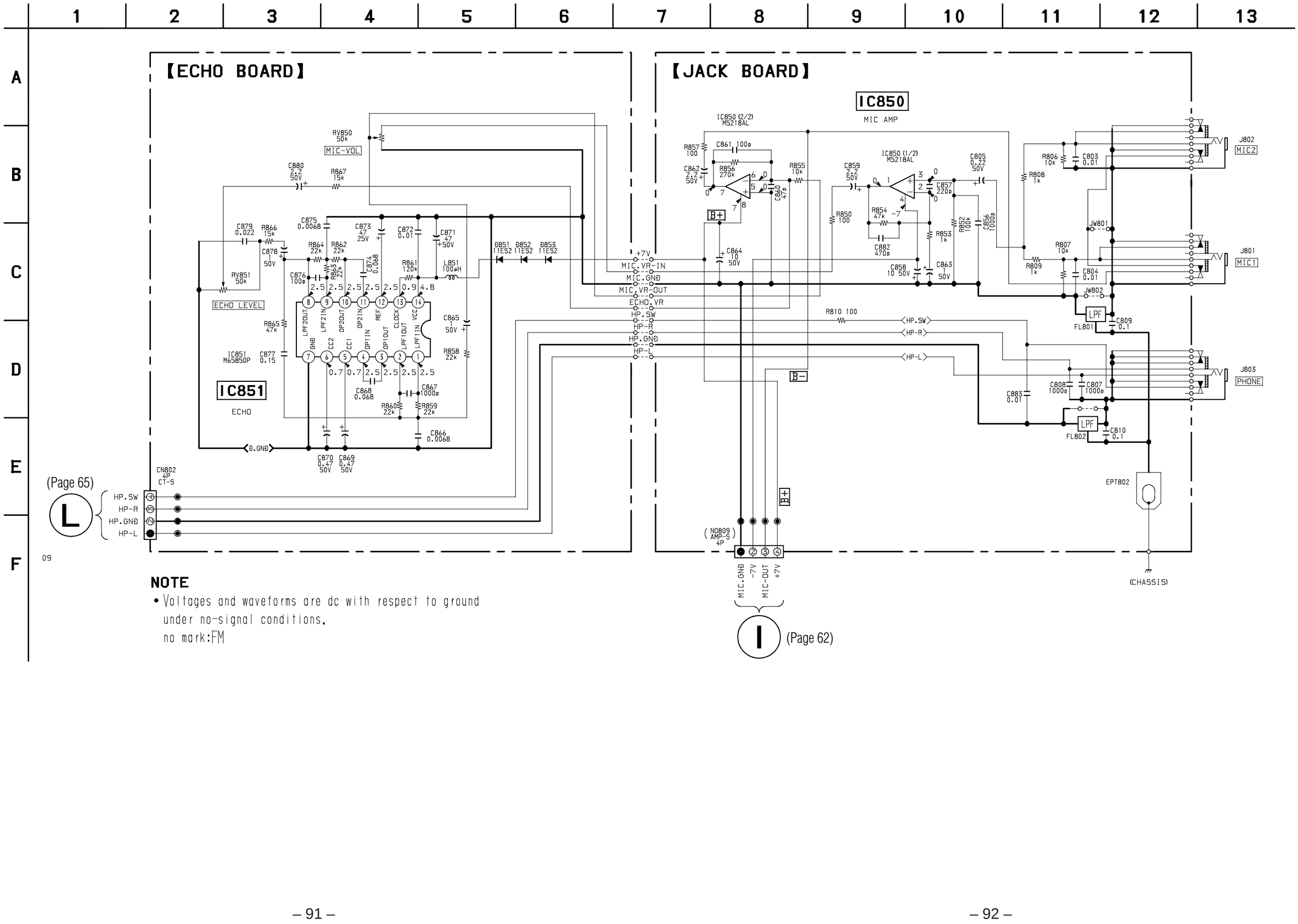
【TABLE SENSOR BOARD】



【LED (CD) BOARD】



7-32. SCHEMATIC DIAGRAM – JACK SECTION –

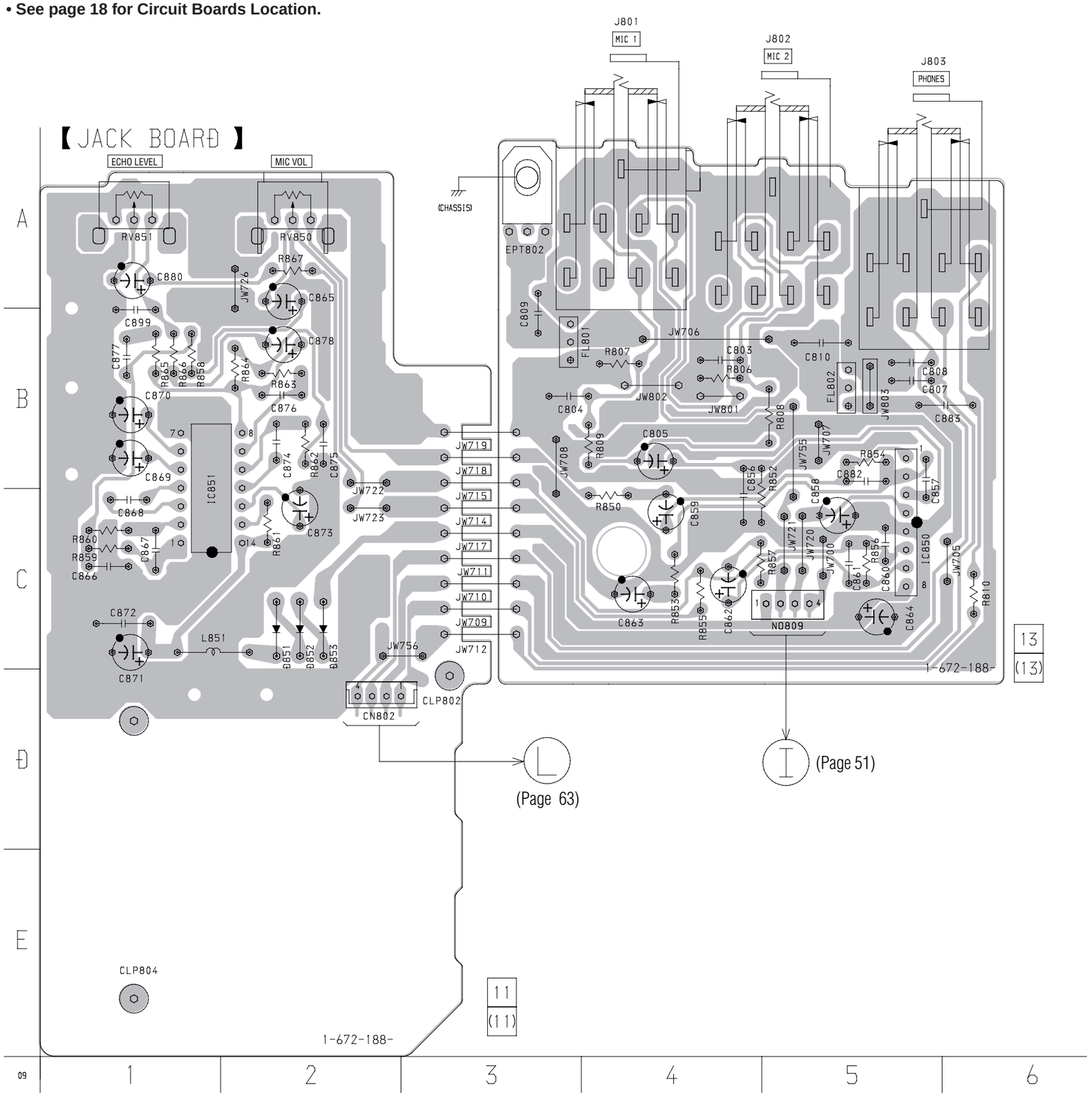


NOTE

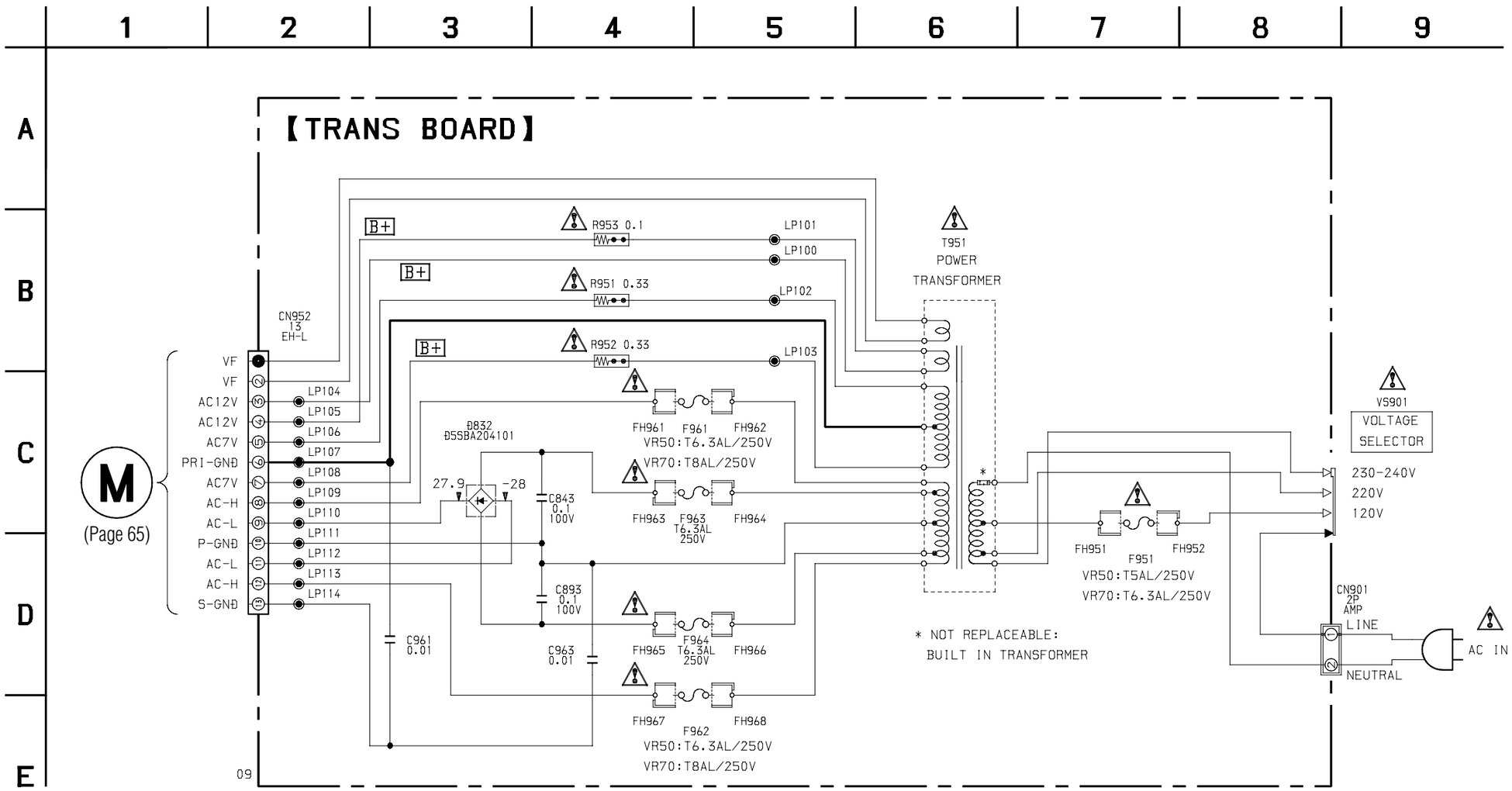
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  no mark:FM

7-33. PRINTED WIRING BOARD – JACK SECTION –

• See page 18 for Circuit Boards Location.



7-34. SCHEMATIC DIAGRAM – TRANS SECTION –

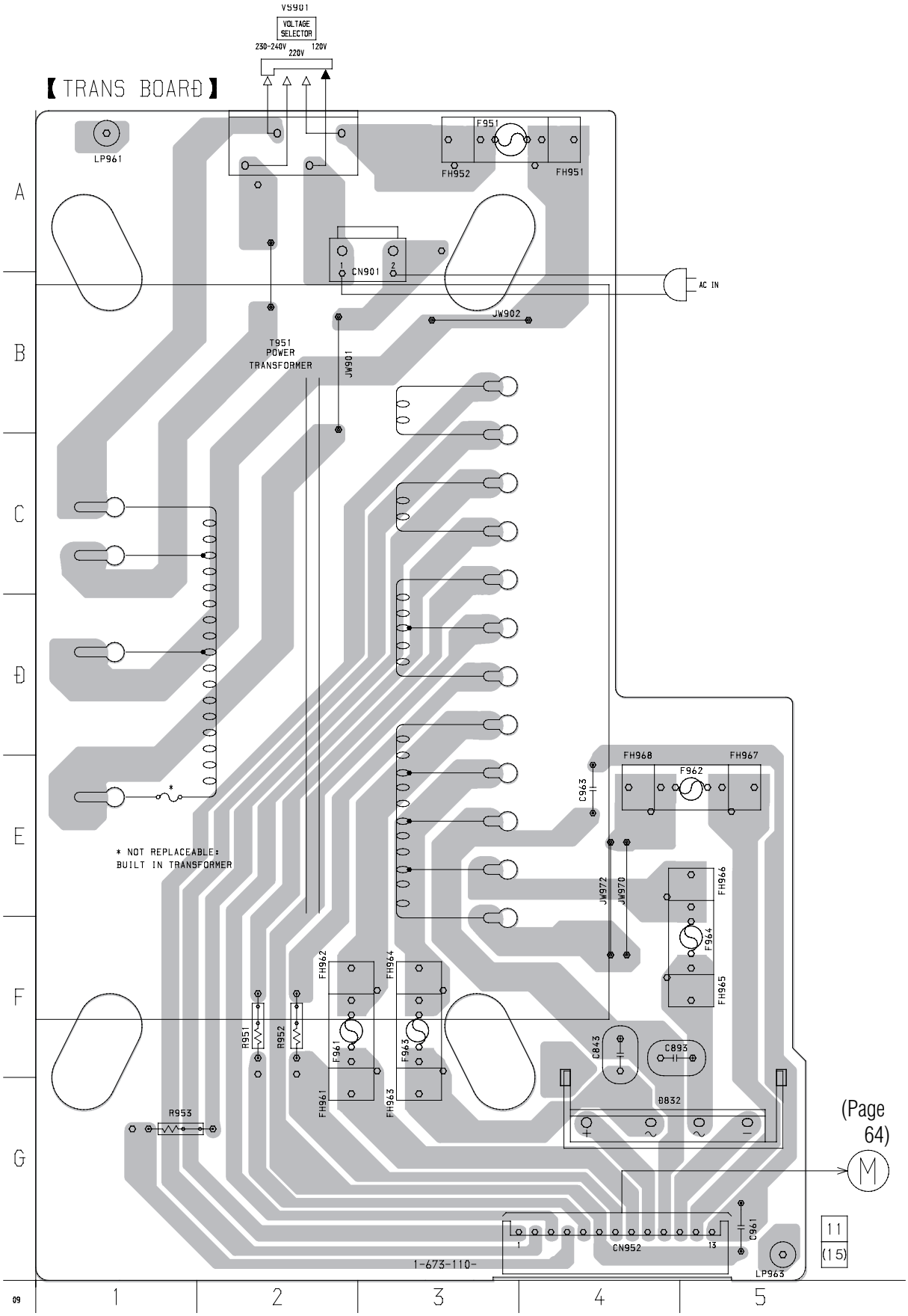


NOTE

- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  no mark:FM

7-35. PRINTED WIRING BOARD – TRANS SECTION –

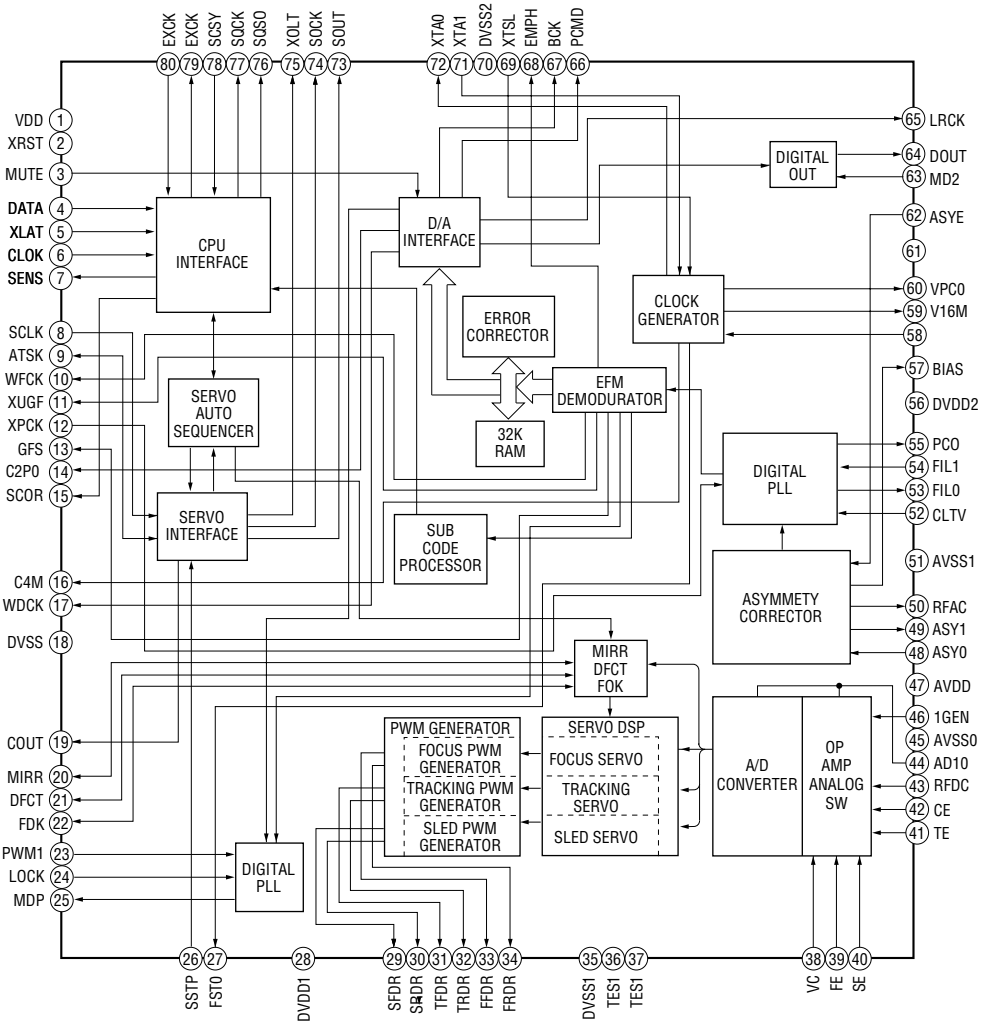
• See page 18 for Circuit Boards Location.



7-36. IC BLOCK DIAGRAMS

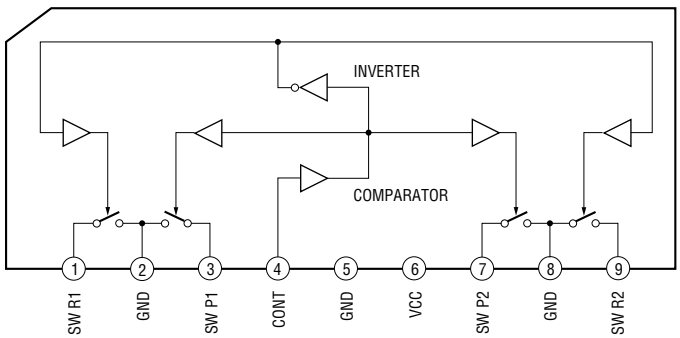
• BD Board

IC101 CXD3008Q



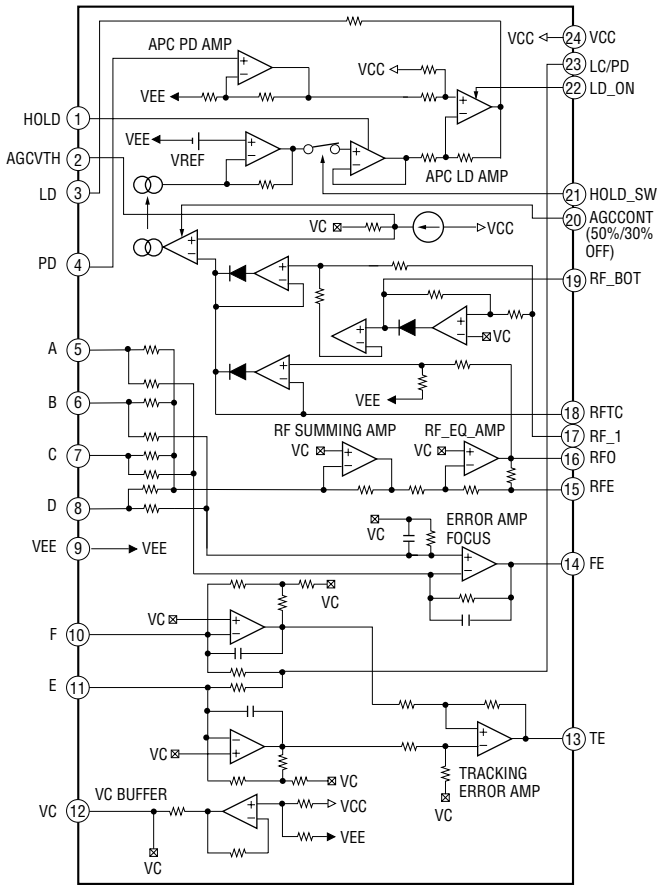
• AUDIO Board

IC602 UPC1330HA



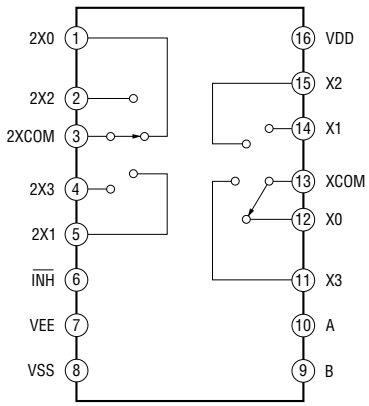
• BD Board

IC103 CXA2568M-T6

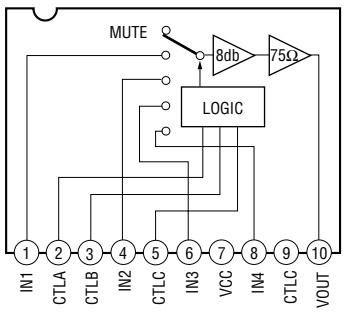


• MAIN Board (1/5)

IC181 MC14052BF

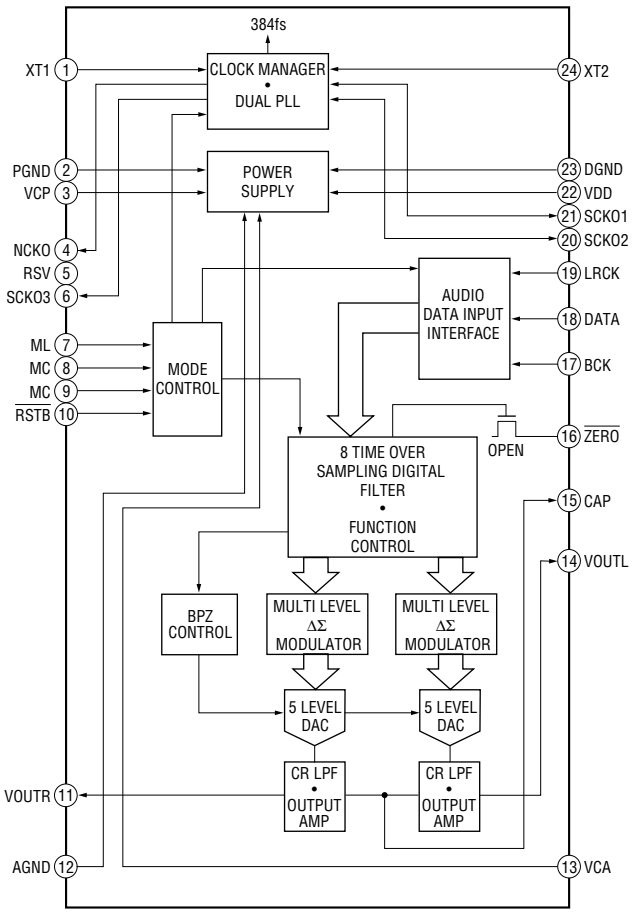


IC191 BA7615N



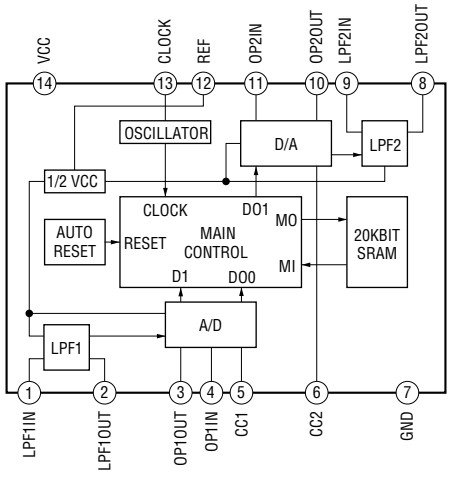
• VIDEO Board (3/3)

IC509 PCM1727E-2/T2



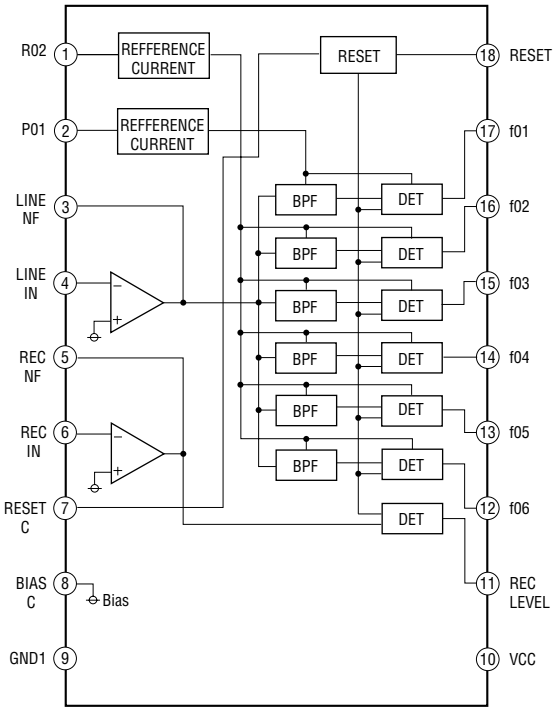
• PANEL VR Board

IC851 M65850P

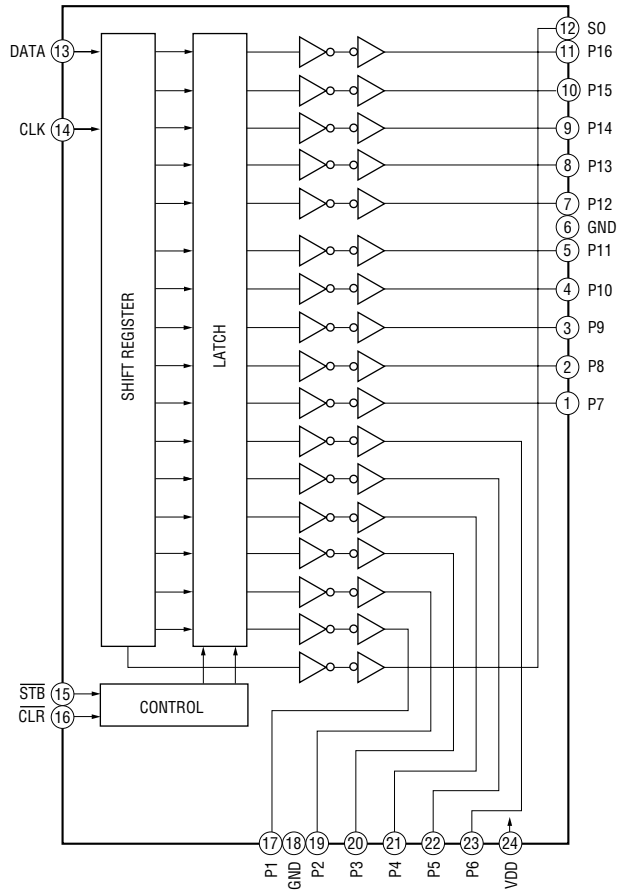


• **PANEL FL Board**

IC603 BA3830F



IC604 NJU3716L



7-37. IC PIN FUNCTIONS

• **IC101 DIGITAL SIGNAL PROCESSOR (CXD3008Q) (BD Board)**

Pin No.	Pin Name	I/O	Function
1	DVDD0	—	Digital power supply
2	XRST	I	System reset
3	MUTE	I	Muting selection pin
4	DATA	I	Serial data input, supplied from CPU
5	XLAT	I	Latch input, supplied from CPU
6	CLOK	I	Serial data transfer clock input, supplied from CPU
7	SENS	O	SENS output
8	SCLK	I	SENS serial data read-out clock
9	ATSK	I/O	Input pin for anti-shock (Ground)
10	WFCK	O	WFCK (Write Frame Clock) output (Not used)
11	XUGF	O	XUGF output (Not used)
12	XPCK	O	XPCK output (Not used)
13	GFS	O	GFS output (Not used)
14	C2P0	O	C2PO output
15	SCOR	O	Sub-code sync output
16	CM4	O	4.2336MHz output (Not used)
17	WDCK	O	48-bit slot D/A interface word clock (Not used)
18	DVSS	—	Digital ground
19	COUT	O	Numbers of track counted signal output (Not used)
20	MIRR	O	Mirror signal output (Not used)
21	DFCT	O	Defect signal output (Not used)
22	FOK	O	Focus OK output (Not used)
23	PWM1	I	(Not used)
24	LOCK	I/O	GFS in sampled by 460Hz (Not used)
25	MDP	O	Output to control spindle motor servo
26	SSTP	I	Input signal to detect disc inner most trak
27	FST0	O	2/3 divider output (Not used)
28	DVDD1	—	Digital power supply
29	SFDR	O	Sled drive output
30	SRDR	O	
31	TFDR	O	Tracking drive output
32	TRDR	O	
33	FFDR	O	Focus drive output
34	FRDR	O	
35	DVSS1	—	Digital ground
36	TEST	I	TEST pin connected normally ground
37	TES1	I	
38	VC	I	Center voltage input
39	FE	I	FOCUS error signal input
40	SE	I	Sled error signal input

Pin No.	Pin Name	I/O	Function
41	TE	I	Tracking error signal input
42	CE	I	Center servo analog input
43	RFDC	I	RF signal input
44	ADI0	O	Test pin (Not used)
45	AVSS0	—	Analog ground
46	IGEN	I	Power supply pin operational amplifiers
47	AVDD	—	Analog power supply
48	ASYO	O	EFM full swing output
49	ASYI	I	Asymmetry comparate voltage input
50	RFAC	I	EFM signal input
51	AVSS1	—	Analog ground
52	CLTV	I	Control voltage input for master VCO
53	FILO	O	Filter output for master PLL
54	FILI	I	Filter input for master PLL
55	PCO	O	Charge-pump output for master PLL
56	AVDD1	—	Analog power supply
57	BIAS	I	Asymmetry circuit constant current input
58	VCTL	I	Control voltage input for variable pitch PLL
59	V16M	I/O	16.9344MHz output (Not used)
60	VPCO	O	Charge-pump output for variable pitch PLL (Not used)
61	DVDD2	—	Digital power supply
62	ASYE	I	Asymmetry circuit ON/OFF
63	MD2	I	Digital-out ON/OFF control
64	DOUT	O	Digital-out output
65	LRCK	O	48-bit slot D/A interface, LR clock output
66	PCMD	O	48-bit slot D/A interface, Serial deta output
67	BCLK	O	48-bit slot D/A interface, bit clock output
68	EMPH	O	Playback disc output in emphasis mode (Not used)
69	XTSL	I	X’tal selection input pin
70	DVSS2	—	Digital ground
71	XTAI	I	X’tal oscillator circuit input
72	XTAO	O	X’tal oscillator circuit output (Not used)
73	SOUT	O	(Not used)
74	SOCK	O	
75	XOCT	O	
76	SQSO	O	Sub-Q serial output
77	SQCK	I	Clock input for SQSO read-out
78	SCSY	I	Sub-code input
79	SBSO	O	Sub-P through Sub-W serial output (Not used)
80	EXCR	I	Clock input for SBSO read-out

• **IC502 MPEG DECODER, MECHANISM CONTROL (M30620MC-A05FP) (VIDEO Board (1/3))**

Pin No.	Pin Name	I/O	Function
1	SENSE	I	Internal state (SENSE) monitor input (IC101)
2	SENSE CLK	O	Serial data reading clock output (IC101)
3	DSP DATA	O	Serial data output (IC101)
4	DSP LATCH	O	Lach output (IC101)
5	DSP CLK	O	Serial data clock output (IC101)
6	TSENS	I	Not used
7	REMOTE IN	I	Not used
8	BYTE	I	External bus width change input (Connected to ground)
9	VSS	–	Ground
10	DSP MUTE	O	Mute output (IC101) “H” : mute
11	CTRL1 (L : DOUBLE)	O	Double change output (IC101) “L” : double
12	XRESET	I	System reset input “L” : reset
13	XOUT	O	Main clock output (10MHz)
14	VSS	–	Ground
15	XIN	I	Main clock input (10MHz)
16	VCC	–	+5V power supply
17	NMI	I	Requests mask disable interruption input (Connected to +5V)
18	SCOR	I	Subcode sync input (IC101)
19	D SENS	I	Not used
20	CL680 INT	I	Video CD interruption input (IC505)
21	CL680 HSEL	O	Video CD select data of the host MPU (IC505)
22	DF LATCH	O	Digital filter latch output (IC509)
23	CL680 HRDY	I	Ready signal input for communication to the host MPU (IC505)
24	680 RESET	O	Video CD reset output (IC505) “L” : reset
25	JOG1	I	Not used
26	JOG2	I	Not used
27	CTRL2	O	Double control output (IC101) “H” : double
28	LD ON	O	Laser diode ON/OFF output
29	IIC1	I/O	IIC clock input from master control
30	IIC0	I/O	IIC data input from master control
31	DATA1O	O	Serial 1 data output (IC505, 509)
32	DATA1I	I	Serial 1 data input (IC505, 509)
33	CLK1	O	Serial 1 clock output
34	SHARPNESS	O	Sharpness output L : normal, H : sharpness
35	XVLEVEL. DOWN	O	Fix the video signal output level output
36	SUBQ DATA	I	Serial 2 data input for subcode sync reading
37	SUBQ CLK	I	Serial 2 clock input for subcode sync reading
38	P. ON	I	Not used
39	BUS XRDY	I	Not used
40	BUS	I	Not used
41	BUS XHOLD	I	Not used
42, 43	BUS	I	Not used
44	BUS XRD	I	Model selection input “L” : chinese model, “H” : except chinese model
45	BUS	I	V sync signal input

Pin No.	Pin Name	I/O	Function
46	BUS XWRL	I	Not used
47	LO. BOOST	I	Not used
48	AUDIO MUTE	O	Audio mute output “L” : mute
49	LOAD OUT	I	Not used
50	LOAD IN	I	Not used
51	INSW	I	Not used
52	OUTSW	I	Not used
53	MODEL 1	I	L : System input (Fixed at “L”)
54	MODEL 2	I	L : System input (Fixed at “L”)
55	TBLL	I	Not used
56	TBLR	I	Not used
57	ENC 1	I	Not used
58	ENC 2	I	Not used
59	ENC 3	I	Not used
60	—	I	Not used
61	—	I	Not used
62	VCC	–	+5V power supply
63	—	I	Not used
64	VSS	–	Ground
65	A7	O	Video mute output “L”
66 to 71	A6 to A1	I	Not used
72	U to I	I	IIC convertion microcomputor transmittion input
73	TEST LED	O	TEST LED for MPEG decoder
74	TEST 1	I	Test mode for Video CD check
75	TEST 2	I	Test mode for servo check
76	TEST 3	I	Not used
77	DEVICE RESET	O	Device system rest output “L” : reset
78	STANDBY	I	Not used
79	FL CS	I	Not used
80	FL	I	Not used
81 to 88	D7 to D0	I	Not used
89	MIC CTRL	I	Not used
90	KEY 1	I	Not used
91	KEY 2	I	Not used
92	KEY 3	I	Not used
93	NY/PAL	I	NTSC/PAL select switch input
94	MUSIC VOL	I	Not used
95	KEY 4	I	Not used
96	AVSS	–	A/D converter ground
97	MODE. SW	I	Not used
98	VREF	I	A/D converter reference voltage input (Connected to +5V)
99	AVCC	–	A/D converter +5V power supply
100	AMP. ON	I	Not used

• **IC505 CD DECODER, SYSTEM CONTROL (CL680T-D1) (VIDEO Board (2/3))**

Pin No.	Pin Name	I/O	Function
1	NC	–	Not used
2	VSS	–	Ground
3	CD-BCK	I	CD Decode bit clock
4	CD-DATA	I	CD Decode data
5	CD-LRCK	I	CD Decode Left or Right channel selection clock
6	CD-C2PO	I	CD Decode C2 error data
7	NC	–	Not used
8	NC	–	Not used
9	NC	–	Not used
10	MD0	I/O	Data bus between Microcode ROM/DRAM and CL680
11	MD1	I/O	Data bus between Microcode ROM/DRAM and CL680
12	MD2	I/O	Data bus between Microcode ROM/DRAM and CL680
13	MD3	I/O	Data bus between Microcode ROM/DRAM and CL680
14	MD4	I/O	Data bus between Microcode ROM/DRAM and CL680
15	MD5	I/O	Data bus between Microcode ROM/DRAM and CL680
16	VSS	–	Ground
17	MD6	I/O	Data bus between Microcode ROM/DRAM and CL680
18	VDD3	–	+3.3V Power supply
19	MD7	I/O	Data bus between Microcode ROM/DRAM and CL680
20	VSS	–	Ground
21	MD8	I/O	Data bus between Microcode ROM/DRAM and CL680
22	VDD3	–	+3.3V Power supply
23	MD9	I/O	Data bus between Microcode ROM/DRAM and CL680
24	MD10	I/O	Data bus between Microcode ROM/DRAM and CL680
25	MD11	I/O	Data bus between Microcode ROM/DRAM and CL680
26	MD12	I/O	Data bus between Microcode ROM/DRAM and CL680
27	MD13	I/O	Data bus between Microcode ROM/DRAM and CL680
28	MD14	I/O	Data bus between Microcode ROM/DRAM and CL680
29	MD15	I/O	Data bus between Microcode ROM/DRAM and CL680
30	NC	–	Not used
31	NC	–	Not used
32	NC	–	Not used
33	NC	–	Not used
34	NC	–	Not used
35	NC	–	Not used
36	NC	–	Not used
37	$\overline{\text{MCE}}$	O	Chip enable signal to Microcode ROM
38	$\overline{\text{MWE}}$	O	Write enable signal to DRAM
39	VSS	–	Ground
40	CAS	O	Column address strove : Latch the column address to DRAM
41	VDD3	–	+3.3V power supply
42	$\overline{\text{RAS0}}$	O	Row address strove : Latch row address to DRAM
43	$\overline{\text{RAS1}}$	–	Not used
44	MA10	O	Address data from CL680 to Microcode ROM
45	MA9	O	Address data from CL680 to Microcode ROM

Pin No.	Pin Name	I/O	Function
46	MA8	O	Address data from CL680 to Microcode ROM/DRAM
47	VSS	–	Ground
48	MA7	O	Address data from CL680 to Microcode ROM/DRAM
49	VDD3	–	+3.3V Power supply
50	MA6	O	Address data from CL680 to Microcode ROM/DRAM
51	MA5	O	Address data from CL680 to Microcode ROM/DRAM
52	MA4	O	Address data from CL680 to Microcode ROM/DRAM
53	VSS	–	Ground
54	MA3	O	Address data from CL680 to Microcode ROM/DRAM
55	VDD3	–	+3.3V Power supply
56	MA2	O	Address data from CL680 to Microcode ROM/DRAM
57	MA1	O	Address data from CL680 to Microcode ROM/DRAM
58	MA0	O	Address data from CL680 to Microcode ROM/DRAM
59	PGIO7	I/O	Not used
60	$\overline{\text{RESET}}$	I	Reset signal input from the host MPU
61	VDDMAX-IN	I	Fix the maxium input voltage each input pin and I/O pin
62	NC	–	Not used
63	NC	–	Not used
64	NC	–	Not used
65	AGND DAC	–	Ground
66	AVDD DAC	–	+3.3V Power supply
67	COMPOS OUT	O	Not used
68	AGND DAC	–	Ground
69	Y-OUT	O	Luminance signal out
70	AVDD DAC	–	+3.3V Power supply
71	AGND DAC	–	Ground
72	RREF	I	Fix the video signal output level
73	(1.235V) VREF	O	Reference voltage (+1.235V)
74	AVDD DAC	–	+3.3V Power supply
75	C-OUT	O	Chrominance signal out
76	AGND DAC	–	Ground
77	(GCK INT) CLK SEL	I	GCK selection “H”; Internal, “L”; External
78	CLK SEL	I	DA-XCK selection (1)
79	CLK SEL	I	DA-XCK selection (2)
80	VSS	–	Ground
81	RESERVED	I	Selection the operation clock 42.336MHz
82	VDD3	–	+3.3V Power supply
83	DA-EMP	–	Not used
84	RESERVED	–	Not used
85	AGND PLL	–	Ground
86	DA-XCLK	I	Main reference clock input (16.9344MHz=384fs)
87	AVDD PLL	–	+3.3V
88	PGIO4	I/O	Not used
89	PGIO5	I/O	Not used
90	PGIO6	I/O	Not used

Pin No.	Pin Name	I/O	Function
91	PGIO0	I/O	Not used
92	PGIO8	I/O	Not used
93	PGIO2/$\overline{\text{VSYNC}}$/CSYNC	O	Vertical synchronized signal of video signal
94	AVDD PLL	–	+3.3V Power supply
95	NC	–	Not used
96	NC	–	Not used
97	NC	–	Not used
98	AGND PLL	–	Ground
99	VSS	–	Ground
100	NC	–	Not used
101	PGIO3/$\overline{\text{HSYNC}}$	I/O	Not used
102	VDD3	–	+3.3V Power supply
103	PGIO1/VCK-OUT	I/O	Not used
104	VSS	–	Ground
105	GCK	I	Not used
106	VCK-IN	I	Main clock for video signal processer
107	GCKOUT/DA-EMP	O	Not used
108	DA-LRCK	O	Digital Audio Left or Right channel selection clock
109	VDDMAX-OUT	O	Fix the maxium output voltage certain output pins (Connected to +5V)
110	DA-DATA	O	Digital Audio data
111	DA-BCK	O	Digital Audio bit clock
112	HD-OUT	O	Serial Data output from CL680 to the host MPU
113	HRDY	O	Ready signal CL680 is ready for communication to the host MPU
114	$\overline{\text{HINT}}$	O	Request signal for interrupting the host MPU
115	CDG-SCK	I/O	Not used
116	VSS	–	Ground
117	HCK	I	Host clock : referance signal for the host bus interface
118	VDD3	–	+3.3V Power supply
119	HD-IN	I	Serial Data output ftom the host MPU to CL680
120	VDD3	–	+3.3V Power supply
121	HSEL	I	Select data or address of the host MPU
122	CDG-SDATA	I	Ground (Not used)
123	CDG-VFSY	I	Ground (Not used)
124	CDG-SOS1	I	Ground (Not used)
125	NC	–	Not used
126	NC	–	Not used
127	NC	–	Not used
128	NC	–	Not used

• **IC501 MAIN CONTROL (M30622MA-A09FP) (MAIN board (2/5))**

Pin No.	Pin Name	I/O	Function
1	POWER	O	Power amp ON/OFF signal output
2	POWER	O	Power ON/OFF signal output
3	F-RELAY	O	Front speaker relay control output
4	REAR-RELAY	O	Rear speaker relay control output (Not used)
5	CD-POWER	O	CD power on signal output
6	LINE-MUTE	O	Line mute signal output
7	DBFB-H/L	O	DBFB H/L select signal output
8	–	–	Connected to ground
9	–	–	Connected to ground
10	XC-IN	I	X'tal (32.768 KHz) (SUB CLOCK)
11	XC-OUT	O	
12	RESET	I	System reset signal input
13	X-OUT	O	X'tal (16MHz) (MAIN SYSTEM CLOCK)
14	VSS	–	Ground
15	X-IN	I	X'tal (16MHz) (MAIN SYSTEM CLOCK)
16	VDD	–	Power supply (+5V)
17	NMI	I	Not used
18	WAKE UP	I	WAKE UP signal input
19	SCOR	I	CD Q-data request signal input
20	RDS-INT	I	RDS data interrupt input
21	RDS-DATA	I	RDS data interrupt input
22	AC-CUT	I	AC cut ON (L)/OFF (H) check
23	PL-CLK	O	Clock output to pro-logic (Not used)
24	PL-DATA	O	Data output to pro-logic (Not used)
25	PL-LAT	O	Latch signal output to pro-logic (Not used)
26	TIMER LED	O	Not used
27	PROTECT	I	Speaker protect signal input
28	V MUTE	O	Video mute signal output
29	IIC-CLK	O	I^2C SCL
30	IIC-DATA	O	I^2C SDA
31	–	–	Not used
32	SQ-DATA	I	Subcode Q data clock input (CD data)
33	SQ-CLK	I	Subcode Q data clock input (CD data clock)
34	SW-MODE	O	SW-MODE music/movie select signal output
35	CD-DATA	O	CD data output
36	H/P IN	I	Head phone detect
37	CD-CLK	O	CD clock output
38	493-LAT	O	Latch signal output for IC101 (M62493FP)
39	CLOCK-OUT	O	Clock out signal check
40	NO-USE	–	Not used
41	NO-USE	–	Not used
42	FL OFF	O	Fluorescent indicator tube filament on/off signal output
43	STBY RELAY	O	Main POWER on/off signal output
44	BASS FREQ	O	FREQ high/low signal output (Not used)
45	FUNC SEL 1	O	Function select signal output
46	FUNC SEL 0	O	Function select signal output
47	493-DATA	O	Data signal output for IC101 (M62493FP)
48	493-CLK	O	Clock signal output for IC101 (M62493FP)
49	ST-MUTE	O	Tuner mute signal output

Pin No.	Pin Name	I/O	Function
50	STEREO	I	Stereo detection for tuner
51	TUNED	I	Tuned detection for tuner
52	ST-CE	O	Tuner chip enable output
53	ST-DOUT	O	Tuner data output
54	ST-DIN	I	Tuner data input
55	ST-CLK	O	Tuner clock output
56	SENS	I	BD Condition signal input
57	HOLD	O	MODE signal output
58	XLT	O	CD latch signal output
59	XRST	O	CD reset signal output
60	DISC-SENS	I	Slit sensor of disc table input (Connected to ground)
61	T-SENS	I	CD table detection signal input
62	VDD	–	Power supply (+5V)
63	TBL-L	O	Table motor control output
64	VSS	I	Ground
65	TBL-R	O	Table motor control output
66	LOAD-OUT	O	Loading motor control signal output (Not used)
67	LOAD-IN	O	Loading motor control signal input (Not used)
68	ENC 3/UP-SW	I	UP-SW detect input
69	ENC 2/DISC-LED	O	LED driver output
70	ENC 1	I	(Connected to ground)
71	OUT-OPEN	O	(Connected to ground) Loading out detection signal output
72	B-TRG	O	B deck trigger motor control output
73	A-TRG	O	A deck trigger motor control output
74	CAP-M-COT2	O	Capstan motor REW/FWD/STOP signal output
75	CAP-M-COT1	O	Capstan motor REW/FWD/STOP signal output
76	CAP-M-H/L	O	Capstan motor High/Low speed select signal output
77	AMS-IN	I	AMS signal input
78	TC-MUTE	O	TC line mute ON/OFF selection output
79	R/PB/PAS	O	REC/PB/PASS selection output
80	NR-ON/OFF	O	DOLBY NR ON/OFF signal output
81	REC-MUTE	O	REC mute ON/OFF selection output
82	BIAS	O	Bias ON/OFF signal output
83	EQ-H/N	O	Equalizer High/Normal select output
84	PB-A/B	O	PB A deck/B deck select output
85	ALC	O	ALC ON/OFF output signal
86	B-PLAY-SW	I	B deck play detect
87	A-PLAY-SW	I	A deck play detect
88	A-HALF	I	A Deck half detector signal input
89	B-HALF	I	B Deck half detector signal input
90	B-SHUT	I	B Deck reel pulse detector
91	A-SHUT	I	A Deck reel pulse detector
92	SOFT-TEST	O	Software test port (Not used)
93	HP-MUTE	O	Head phone mute signal output
94	KEY/CD-ADJ	I	KEY (use the jig)/CD adjust point port
95	MODEL IN	I	MODEL input
96	AVSS	–	Analog ground
97	SPEC-IN	I	Specifications input
98	VREF	I	Analog reference voltage input
99	AVCC	–	Analog power supply (+5V)
100	TC-RELAY	O	REC/PB head selection output for IC602

• **IC601 DISPLAY CONTROL (TMP88CS76F-6004) (PANEL FL board)**

Pin No.	Pin Name	I/O	Function
1	SIRCS	I	Remote commander signal input
2	JOG A	I	Rotary encoder (S702) pulse input
3	LED SCK	O	LED clock signal output
4	LED LATCH	O	LED latch signal output
5	LED DAT	O	LED serial data output
6	LED POWER	–	Not used
7	LED SEL	O	LED select signal output
8	JOG B	I	Rotary encoder (S702) pulse input
9	VOLUME A	I	Rotary encoder (S701) pulse input
10	VOLUME B	I	
11 to 15	KEY 0 to KEY 4	I	Key input
16 to 20	BPF 0 to BPF 4	I	Rec level signal input
21	ALL BAND	O	Rec level signal output for auto DBDF
22	WAKE UP	O	Gradation right/WAKE UP signal output
23	Vss	–	Ground
24	VAss	–	
25	VAref	I	Analog reference voltage input
26	VDD	–	Power supply (+5V)
27 to 40	GR 3 to GR 16	O	FL gride signal output
41	VDD VFT	–	Power supply (+5V) for VFT
42, 43	GR 1, GR 2	O	FL gride signal output
44	SEG 0	O	FL segment signal output (Not used)
45 to 67	SEG 1 to SEG 23	O	FL segment signal output
68	Vkk	–	Power supply (-25V) for FL segment signal output
69	Vdd	–	Power supply (+5V)
70	X in	I	X'tal (12.5MHz)
71	Vss	–	Ground
72	X out	O	X'tal (12.5MHz)
73	RESET	I	Reset signal input from main controller
74	DAILY LED	O	LED driver output
75	REC LED	O	
76	TEST	I	Connected ground
77	LED-ECO	O	LED driver output
78	I^2C DATA	I	I^2C SDA input from master controller
79	I^2C CLK	I	I^2C SCL input from master controller
80	D-SW	I	Door switch signal input

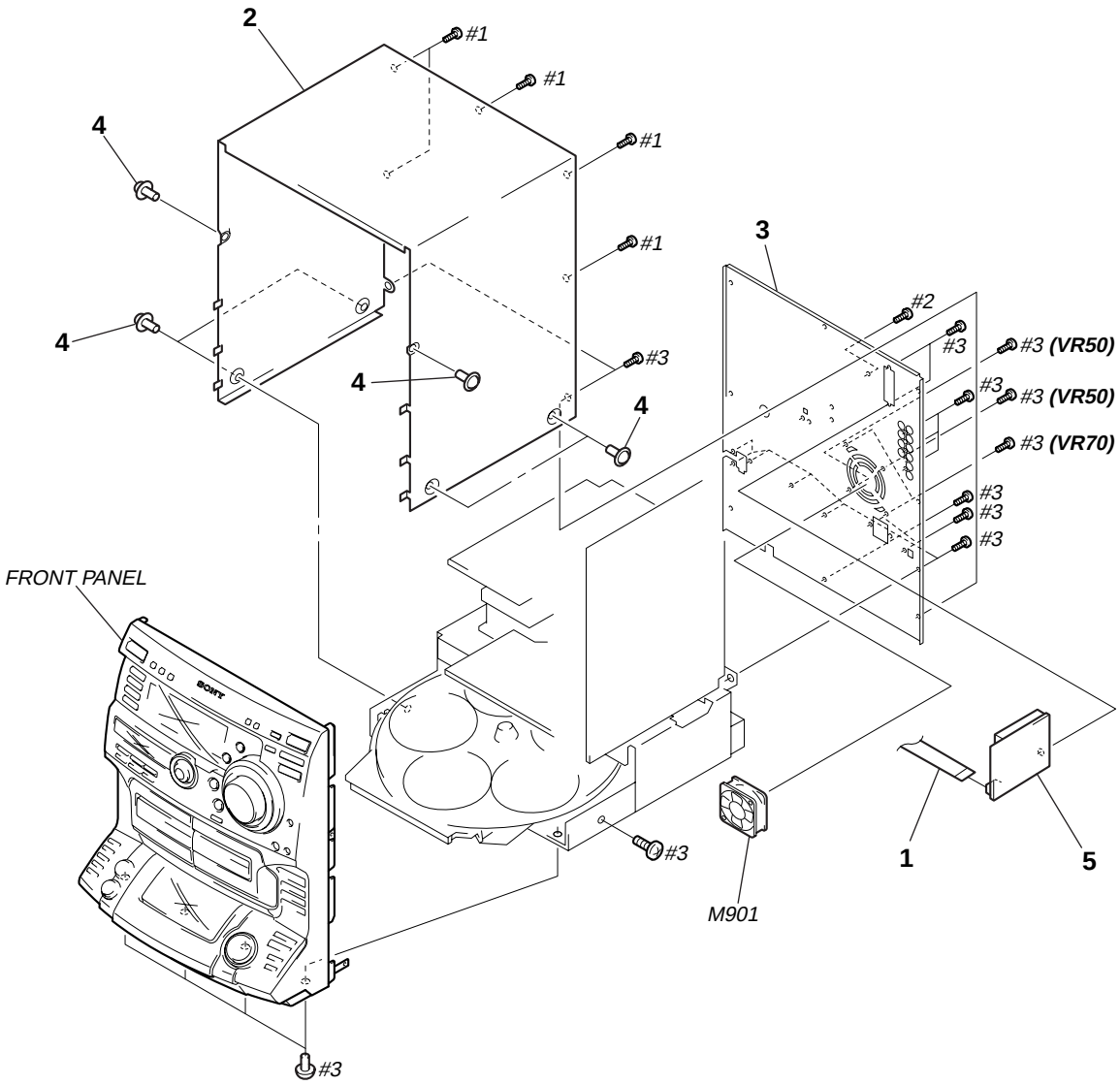
SECTION 8
EXPLODED VIEWS

NOTE:
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.

- Abbreviation
  EA : Saudi Arabia model
  SP : Singapore model
  MY : Malaysia model
  IA : Indonesia model

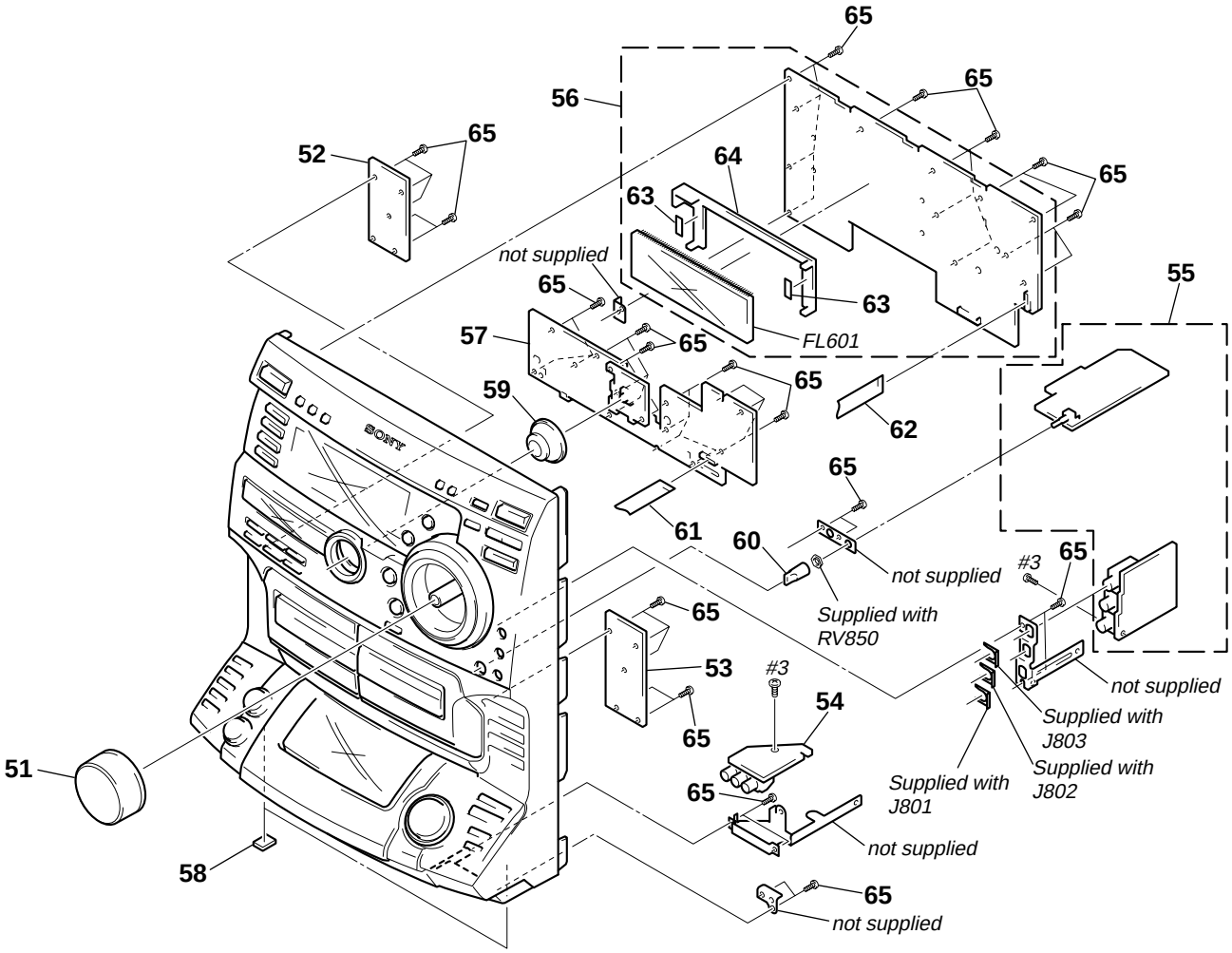
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

8-1. CASE AND BACK PANEL SECTION



Ref. No.	Part No.	Description	Remark
1	1-769-977-11	WIRE (FLAT TYPE) (13 CORE)	
* 2	4-214-777-31	CASE	
3	4-214-791-01	PANEL, BACK (VR50:SP,MY)	
3	4-214-791-11	PANEL, BACK (EA)	
3	4-214-792-01	PANEL, BACK (VR70:SP,MY)	
3	4-214-792-11	PANEL, BACK (IA)	
4	3-363-099-01	SCREW (CASE 3 TP2)	
5	1-693-420-12	TUNER UNIT (FM/AM)	
M901	1-698-792-11	FAN, DC (VR50)	
M901	1-763-072-11	FAN, DC (VR70)	

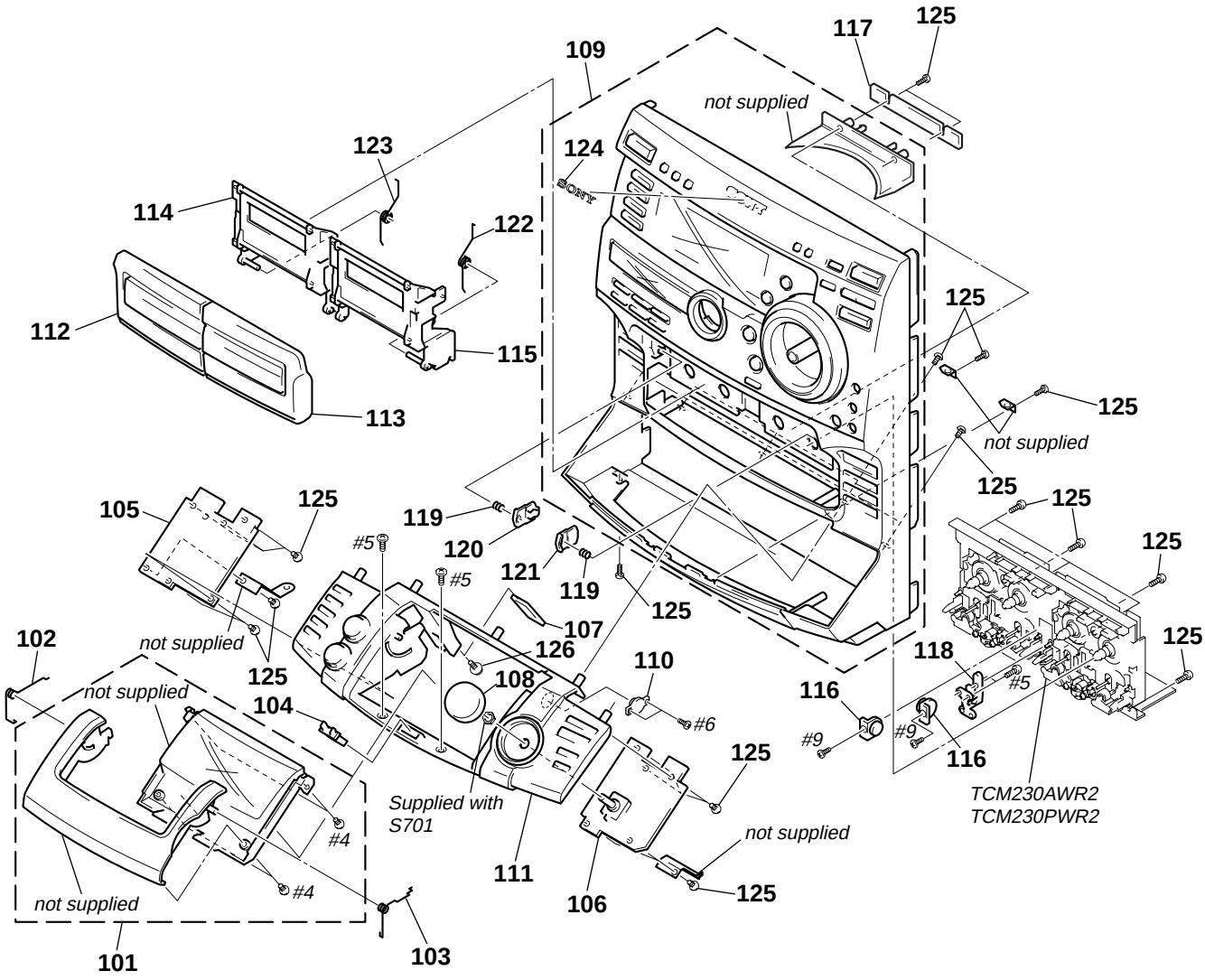
8-2. FRONT PANEL SECTION 1



Ref. No.	Part No.	Description	Remark
51	4-214-716-01	KNOB (VOL)	
* 52	1-672-193-11	TC-A BOARD	
* 53	1-672-194-11	TC-B BOARD	
* 54	1-672-190-12	FRONT INPUT BOARD	
55	A-4417-554-A	JACK BOARD, COMPLETE	
* 56	A-4426-366-A	PANEL FL BOARD, COMPLETE (VR50)	
* 56	A-4426-393-A	PANEL FL BOARD, COMPLETE (VR70)	
57	A-4417-467-A	PANEL VR BOARD, COMPLETE (VR70)	
57	A-4417-557-A	PANEL VR BOARD, COMPLETE (VR50)	
58	4-948-236-21	CUSHION (107)	

Ref. No.	Part No.	Description	Remark
59	4-214-717-01	CURSOR	
60	4-214-756-01	KNOB (MICROPHONE)	
61	1-773-002-11	WIRE (FLAT TYPE) (15 CORE)(80mm)	
62	1-773-034-11	WIRE (FLAT TYPE) (15 CORE)(420mm)	
* 63	4-949-935-81	CUSHION (FL)	
* 64	4-214-749-01	HOLDER (925), FL TUBE (VR70)	
* 64	4-214-750-01	HOLDER (915), FL TUBE (VR50)	
65	4-951-620-01	SCREW (2.6X8), +BVTP	
FL601	1-517-839-11	INDICATOR TUBE, FLUORESCENT (VR70)	
FL601	1-517-840-11	INDICATOR TUBE, FLUORESCENT (VR50)	

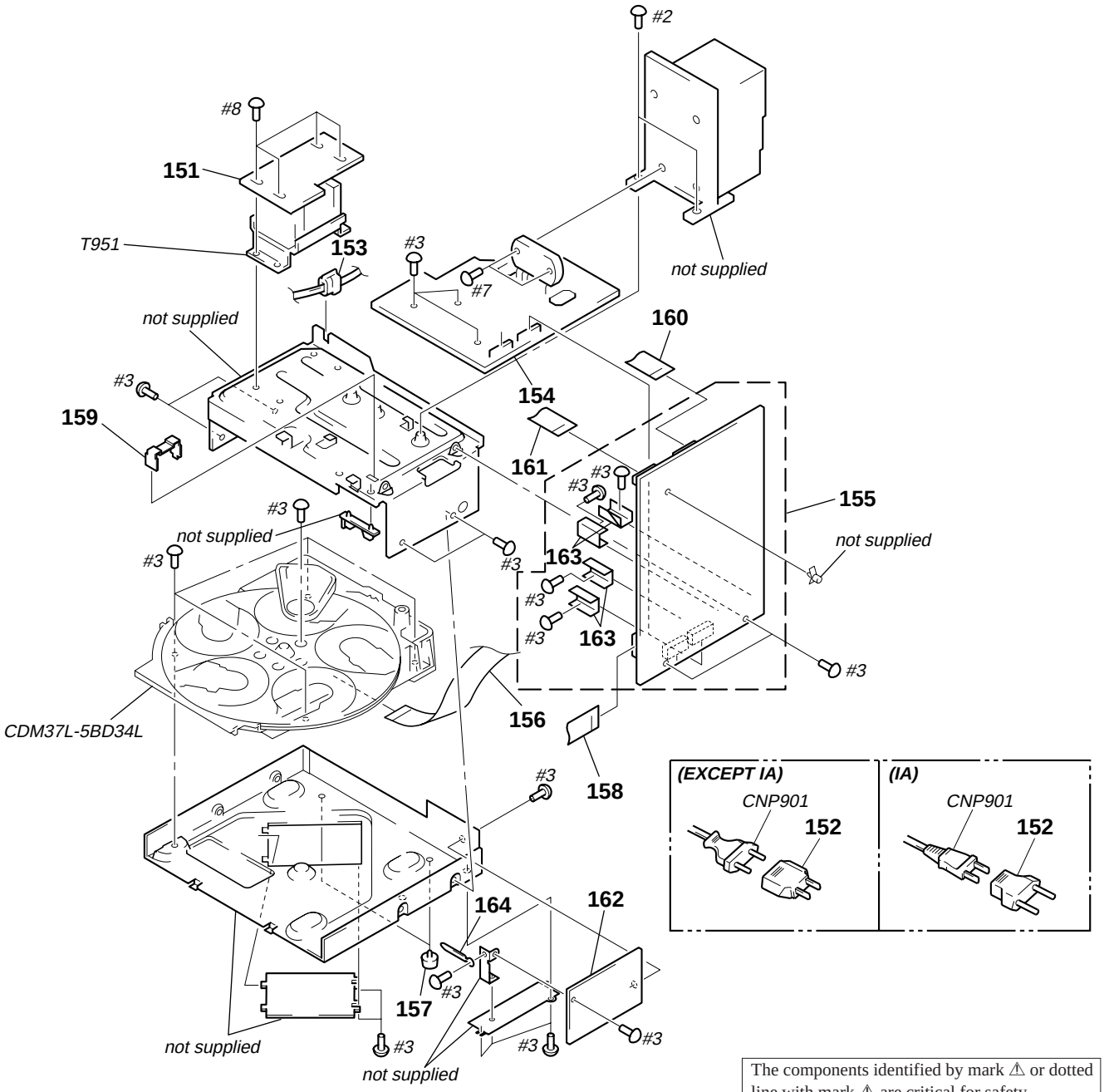
8-3. FRONT PANEL SECTION 2



Ref. No.	Part No.	Description	Remark
101	X-4950-644-1	CD LID ASSY	
102	4-214-773-02	SPRING (CD-L), TORSION	
103	4-214-774-02	SPRING (CD-R), TORSION	
104	4-040-472-01	LATCH, D.C.	
* 105	1-672-186-11	CD-L BOARD	
* 106	1-672-187-12	CD-R BOARD	
* 107	1-672-191-12	DOOR-SW BOARD	
108	4-214-718-02	KNOB (CD)	
109	X-4950-646-1	PANEL ASSY (VR50)	
109	X-4950-647-1	PANEL ASSY (VR70)	
* 110	3-973-975-21	DAMPER, OIL	
111	X-4950-643-1	PANEL ASSY, SUB	
112	X-4950-666-1	LID (A) ASSY, CASSETTE (VR50)	
112	X-4950-667-1	LID (A) ASSY, CASSETTE (VR70)	
113	X-4950-639-1	LID (B) ASSY, CASSETTE	

Ref. No.	Part No.	Description	Remark
114	X-4950-641-1	HOLDER (A) ASSY, CASSETTE	
115	X-4950-642-1	HOLDER (B) ASSY, CASSETTE	
116	4-215-062-01	DAMPER	
* 117	1-672-195-11	LED (PANEL) BOARD	
118	4-214-755-01	HOLDER (FULCRUM)	
119	4-214-775-02	SPRING, PUSH CATCHER RETURN	
120	4-214-760-11	CATCHER (A), PUSH	
121	4-214-761-11	CATCHER (B), PUSH	
122	4-214-769-01	SPRING (TC-B), TORSION	
123	4-214-768-01	SPRING (TC-A), TORSION	
124	4-214-759-01	EMBLEM (NO.6), SONY	
125	4-951-620-01	SCREW (2.6X8), +BVTP	
126	4-957-577-01	SCREW PTP WH (2.6X8)(DIA. 10)	

8-4. CHASSIS SECTION



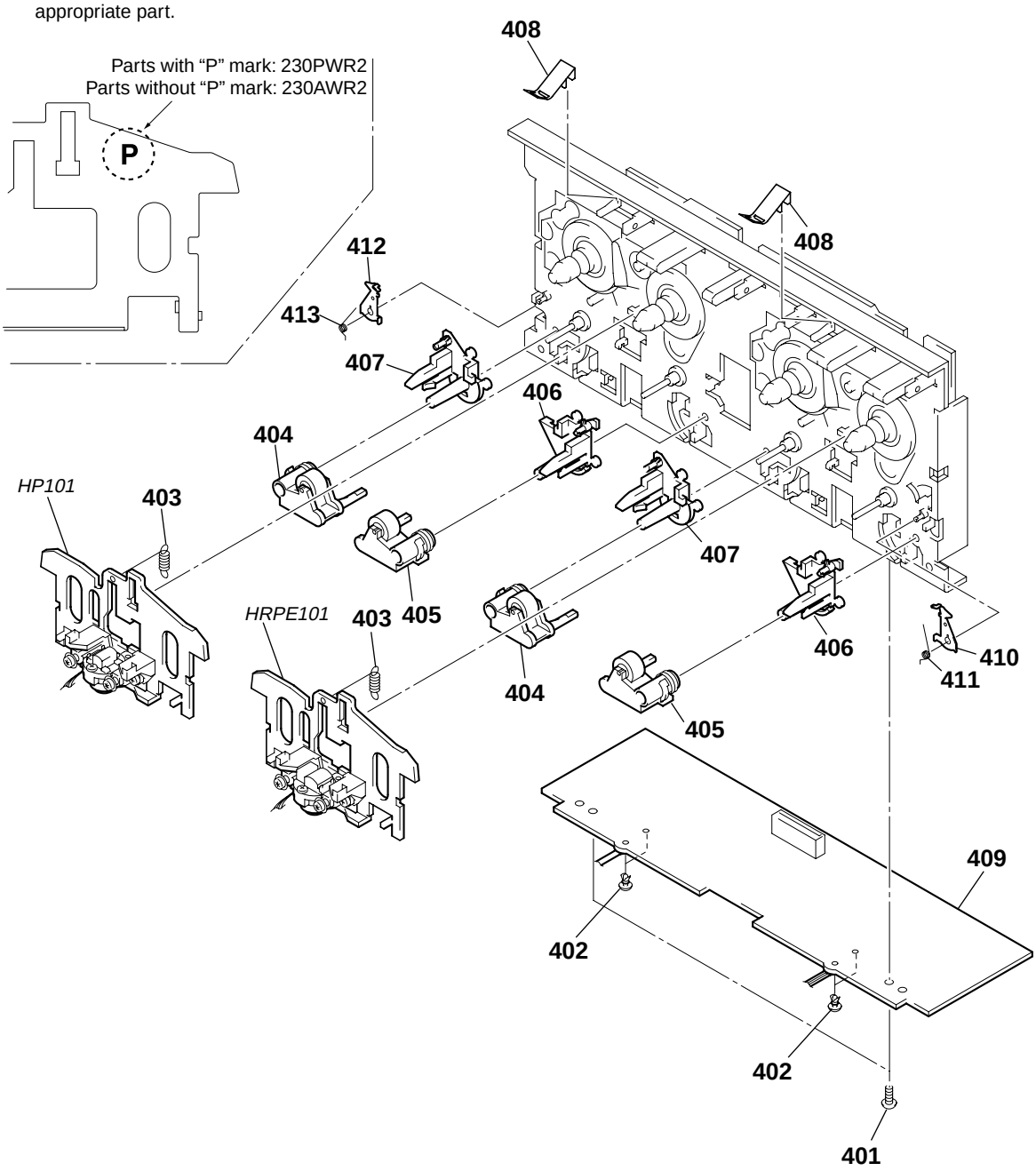
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description	Remark
151	1-673-110-11	TRANS BOARD	
152	1-569-007-11	ADAPTOR, CONVERSION 2P (IA)	
152	1-569-008-21	ADAPTOR, CONVERSION 2P (EXCEPT IA)	
153	3-703-244-00	BUSHING (FBS001), CORD	
154	A-4417-475-A	PA BOARD, COMPLETE (VR70)	
154	A-4417-558-A	PA BOARD, COMPLETE (VR50)	
155	A-4417-464-A	MAIN BOARD, COMPLETE (VR70)	
155	A-4417-549-A	MAIN BOARD, COMPLETE (VR50:SP,MY)	
155	A-4419-665-A	MAIN BOARD, COMPLETE (EA)	
156	1-790-660-11	WIRE (FLAT TYPE) (23 CORE)	
157	X-4941-228-1	FOOT (F22125H-M)	

Ref. No.	Part No.	Description	Remark
158	1-790-288-11	WIRE (FLAT TYPE) (13 CORE)	
* 159	4-988-533-01	HOLDER, PWB	
160	1-773-006-11	WIRE (FLAT TYPE) (15 CORE)	
161	1-773-056-11	WIRE (FLAT TYPE) (17 CORE)	
162	A-4724-725-A	VIDEO BOARD, COMPLETE	
163	4-875-327-31	HEAT SINK	
* 164	3-703-150-11	CLAMP	
⚠CNP901	1-558-943-41	CORD, POWER (IA)	
⚠CNP901	1-575-651-21	CORD, POWER (EXCEPT IA)	
⚠T951	1-433-604-11	TRANSFORMER, POWER (VR50)	
⚠T951	1-433-606-11	TRANSFORMER, POWER (VR70)	

8-5. TC MECHANISM SECTION 1 (TCM230AWR2/230PWR2)

*NOTE: Two types of parts which are not interchangeable are available for the Head deck (A) ASSY and Head deck (B) ASSY. When replacing the parts, refer to the following figure, and use the appropriate part.

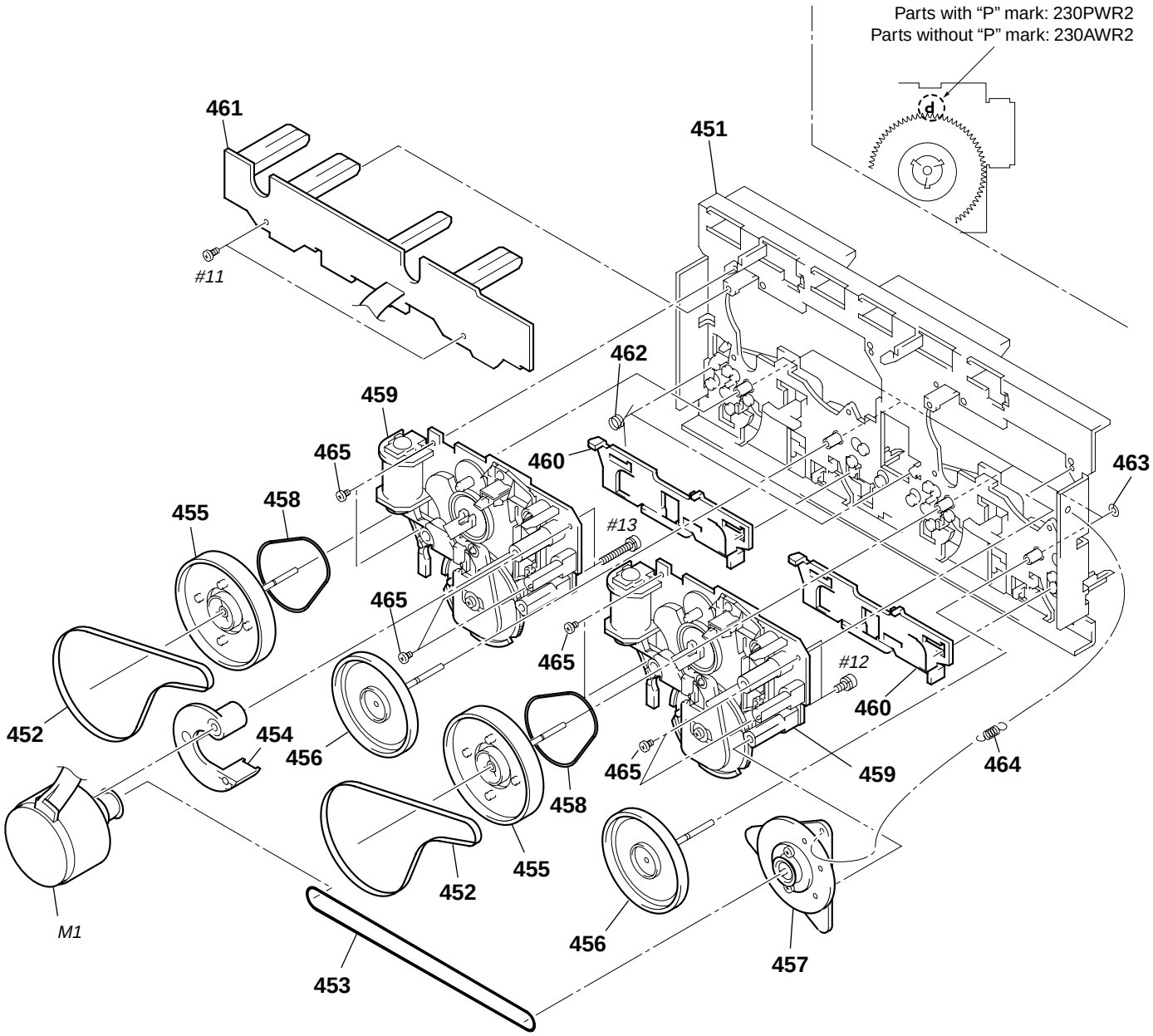


Ref. No.	Part No.	Description	Remark
401	3-376-464-11	SCREW(+PTT 2.6X6),GROUND POINT	
402	3-911-116-42	RIVET, PUSH	
403	3-016-574-01	SPRING (HEAD), TENSION	
404	X-3374-156-4	PINCH LEVER (REV) ASSY	
405	X-3374-155-4	PINCH LEVER (FWD) ASSY	
406	3-017-365-01	BASE (PINCH LEVER FWD)	
407	3-017-366-01	BASE (PINCH LEVER REV)	
408	3-026-892-01	SPRING (CASSETTE), LEAF	
409	A-2007-799-A	AUDIO BOARD, COMPLETE	

Ref. No.	Part No.	Description	Remark
410	3-016-573-01	LEVER (EJECT PREVENTION R)	
411	3-032-810-02	SPRING (R), TORSION	
412	3-016-572-01	LEVER (EJECT PREVENTION L)	
413	3-032-809-02	SPRING (L), TORSION	
HP101	A-2056-681-B	DECK (A) ASSY, HEAD (230AWR2)(*NOTE)	
HP101	A-2056-683-B	DECK (A) ASSY, HEAD (230PWR2)(*NOTE)	
HRPE101	A-2056-682-B	DECK (B) ASSY, HEAD (230AWR2)(*NOTE)	
HRPE101	A-2056-684-B	DECK (B) ASSY, HEAD (230PWR2)(*NOTE)	

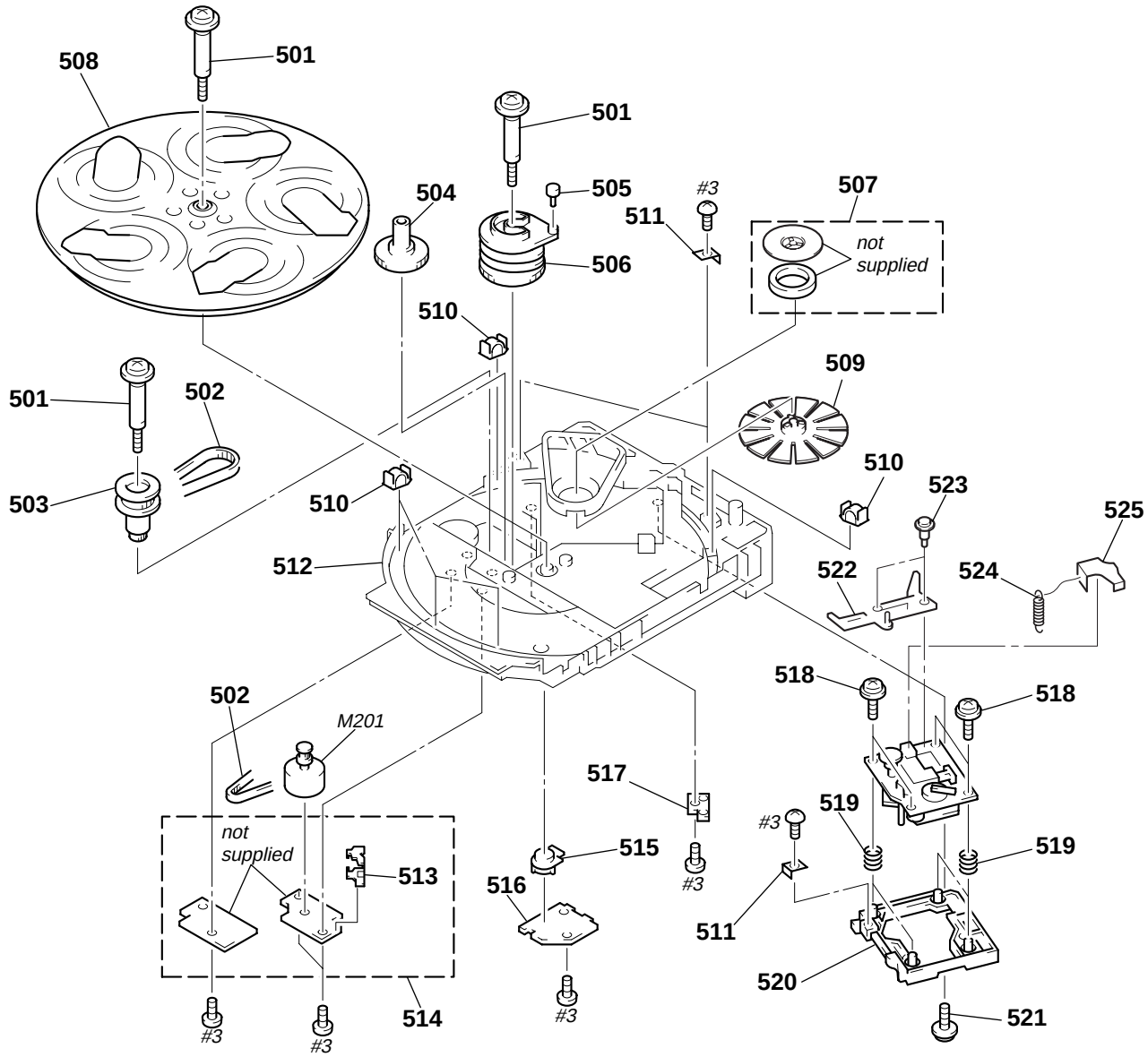
8-6. TC MECHANISM SECTION 2 (TCM230AWR2/230PWR2)

*NOTE: Two types of parts which are not interchangeable are available for the mechanical block assembly. When replacing the parts, refer to the following figure, and use the appropriate part.



Ref. No.	Part No.	Description	Remark
451	X-3374-214-1	CHASSIS ASSY, MAIN	
452	3-016-570-01	BELT (CAPSTAN)	
453	3-016-569-01	BELT (TENSION)	
* 454	3-016-568-01	BRACKET (MOTOR)	
455	X-3374-075-5	FLYWHEEL (FWD) ASSY	
456	X-3374-076-1	FLYWHEEL (REV) ASSY	
457	X-3374-157-1	PULLEY ASSY, TENSION	
458	3-024-405-01	BELT (FR2)	
459	A-2004-629-A	MECHANICAL BLOCK ASSY (230AWR2)(*NOTE)	
459	A-2004-630-A	MECHANICAL BLOCK ASSY (230PWR2)(*NOTE)	
460	3-016-566-01	SLIDER, REVERSE	
461	A-2007-800-A	LEAF SW BOARD, COMPLETE	
462	3-016-575-01	SPRING, TORSION	
463	3-019-208-01	WASHER, STOPPER	
464	3-027-453-01	SPRING (GROUND), TENSION	
465	3-030-823-01	SCREW (+BVTT) (2X3.5)	
M1	A-2004-628-A	MOTOR ASSY, CAPSTAN	

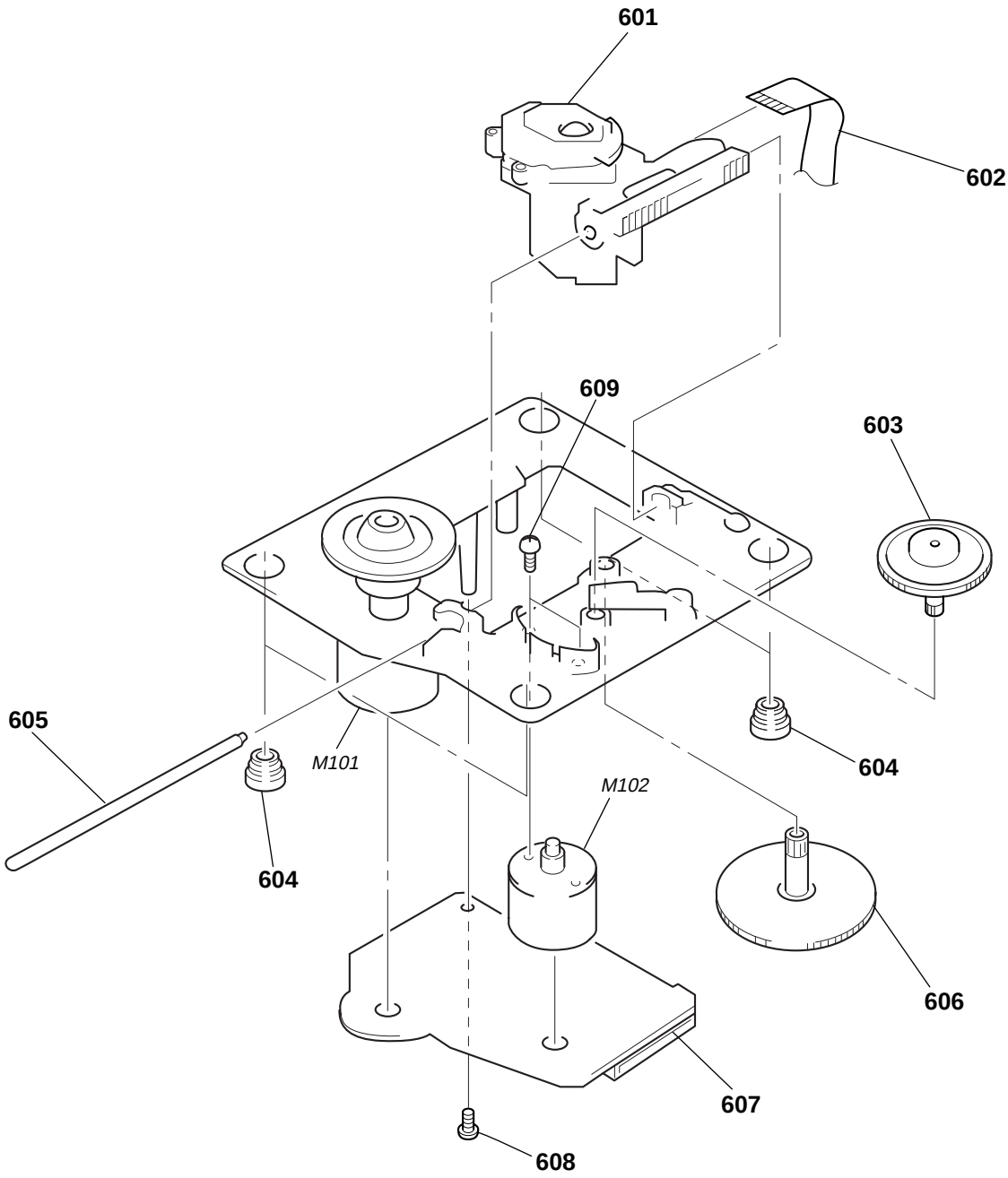
8-7. CD MECHANISM SECTION (CDM37L-5BD34L)



Ref. No.	Part No.	Description	Remark
501	4-987-976-01	SCREW, STEP	
502	4-944-490-01	BELT (TIMING)	
503	A-4660-978-A	GEAR (PULLEY) ASSY	
504	4-978-421-01	GEAR (MID)	
505	4-978-425-01	ROLLER (CAM)	
506	4-978-420-01	CAM (HOLDER)	
507	1-452-925-21	MAGNET ASSY	
508	4-978-417-01	TABLE, DISC	
509	4-993-142-03	PULLEY (L), PRESS	
510	X-4947-960-1	ROLLER ASSY	
* 511	4-978-583-01	BRACKET (BU)	
* 512	4-978-418-01	CHASSIS	
* 513	4-980-385-01	HOLDER (SW)	
* 514	A-4673-765-A	CD MOTOR BOARD, COMPLETE	

Ref. No.	Part No.	Description	Remark
515	4-978-426-01	INDICATOR (NO.)	
* 516	1-659-059-13	LED (CD) BOARD	
* 517	1-659-058-13	TABLE SENSOR BOARD	
518	4-985-672-01	SCREW (+PTPWHM2.6), FLOATING	
519	4-958-593-01	SPRING (BU), COMPRESSION	
* 520	4-978-419-01	HOLDER (BU-5)	
521	4-998-716-01	SCREW, BU FITTING	
522	4-989-493-01	SLIDER (37)	
523	4-989-494-01	SCREW (SLIDER), STEP	
524	4-989-819-02	SPRING, TENSION	
525	4-989-491-01	COVER, LENS	
M201	A-4660-977-A	MOTOR ASSY (TABLE)	

8-8. BASE UNIT SECTION (BU-5BD34L)



The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description	Remark
⚠601	8-820-020-02	OPTICAL PICK-UP KSS-213D/Q-NP	
602	1-769-069-11	WIRE (FLAT TYPE) (16 CORE)	
603	4-917-567-21	GEAR (M)	
604	4-951-940-01	INSULATOR (BU)	
605	4-917-565-01	SHAFT, SLED	
606	4-917-564-01	GEAR (P), FLATNESS	

Ref. No.	Part No.	Description	Remark
607	A-4724-653-A	BD BOARD, COMPLETE	
608	4-951-620-01	SCREW (2.6X8), +BVTP	
609	3-713-786-51	SCREW +P 2X3	
M101	X-4917-523-4	MOTOR ASSY (SPINDLE)	
M102	X-4917-504-1	MOTOR ASSY (SLED)	

SECTION 9
ELECTRICAL PARTS LIST

AUDIO

Note:

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the board name.

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- RESISTORS
  All resistors are in ohms
  METAL: Metal-film resistor
  METAL OXIDE: Metal Oxide-film resistor
  F : nonflammable
- SEMICONDUCTORS
  In each case, u: µ , for example:
  uA...: µ A..., uPA...: µ PA..., uPB...: µ PB..., uPC...: µ PC..., uPD...: µ PD...
- CAPACITORS
  uF : µ F
- COILS
  uH : µ H
- Abbreviation
  EA : Saudi Arabia model
  SP : Singapore model
  MY : Malaysia model
  IA : Indonesia model

Ref. No.	Part No.	Description				Remark
	A-2007-799-A	AUDIO BOARD, COMPLETE				
		**********				
		< CAPACITOR >				
C301	1-162-289-31	CERAMIC	390PF	10%	50V	
C302	1-126-968-11	ELECT	100uF	20%	6.3V	
C303	1-162-282-31	CERAMIC	100PF	10%	50V	
C304	1-130-483-00	MYLAR	0.01uF	5%	50V	
C305	1-107-715-11	ELECT	22uF	20%	16V	
C311	1-162-289-31	CERAMIC	390PF	10%	50V	
C313	1-162-282-31	CERAMIC	100PF	10%	50V	
C314	1-130-487-00	MYLAR	0.022uF	5%	50V	
C315	1-126-233-11	ELECT	22uF	20%	50V	
C331	1-137-427-11	FILM	120PF	5%	50V	
C332	1-162-288-31	CERAMIC	330PF	10%	50V	
C333	1-162-209-31	CERAMIC	27PF	5%	50V	
C401	1-162-289-31	CERAMIC	390PF	10%	50V	
C402	1-126-968-11	ELECT	100uF	20%	6.3V	
C403	1-162-282-31	CERAMIC	100PF	10%	50V	
C404	1-130-483-00	MYLAR	0.01uF	5%	50V	
C405	1-107-715-11	ELECT	22uF	20%	16V	
C411	1-162-289-31	CERAMIC	390PF	10%	50V	
C413	1-162-282-31	CERAMIC	100PF	10%	50V	
C414	1-130-487-00	MYLAR	0.022uF	5%	50V	
C415	1-126-233-11	ELECT	22uF	20%	50V	
C431	1-137-427-11	FILM	120PF	5%	50V	
C432	1-162-288-31	CERAMIC	330PF	10%	50V	
C433	1-162-209-31	CERAMIC	27PF	5%	50V	
C601	1-104-396-11	ELECT	10uF	20%	16V	
C602	1-104-396-11	ELECT	10uF	20%	16V	
C611	1-104-396-11	ELECT	10uF	20%	16V	
C612	1-104-396-11	ELECT	10uF	20%	16V	
C621	1-137-150-11	FILM	0.01uF	5%	100V	
C622	1-126-961-11	ELECT	2.2uF	20%	50V	
C623	1-136-155-00	FILM	0.015uF	5%	50V	
C624	1-130-481-00	MYLAR	0.0068uF	5%	50V	
C625	1-130-481-00	MYLAR	0.0068uF	5%	50V	
C627	1-124-903-11	ELECT	1uF	20%	50V	
C628	1-136-153-00	FILM	0.01uF	5%	50V	
C642	1-104-664-11	ELECT	47uF	20%	16V	
		< CONNECTOR >				
CN601	1-695-338-11	PIN, CONNECTOR (PC BOARD) 15P				
		< IC >				
IC601	8-759-111-44	IC UPC4570C-1				
IC602	8-759-143-54	IC UPC1330HA				
IC611	8-759-111-44	IC UPC4570C-1				
		< COIL >				
L331	1-410-780-11	INDUCTOR	27mH			
L431	1-410-780-11	INDUCTOR	27mH			
L601	1-414-193-41	INDUCTOR	220uH			
L602	1-414-193-41	INDUCTOR	220uH			
		< TRANSISTOR >				
Q621	8-729-142-46	TRANSISTOR	2SC2001-LK			
Q622	8-729-142-46	TRANSISTOR	2SC2001-LK			
Q623	8-729-801-93	TRANSISTOR	2SD1387			
		< RESISTOR >				
R301	1-247-881-00	CARBON	120K	5%	1/4W	
R302	1-247-815-91	CARBON	220	5%	1/4W	
R303	1-247-863-91	CARBON	22K	5%	1/4W	
R304	1-247-889-00	CARBON	270K	5%	1/4W	
R305	1-247-858-11	CARBON	13K	5%	1/4W	
R311	1-247-881-00	CARBON	120K	5%	1/4W	
R312	1-247-807-31	CARBON	100	5%	1/4W	
R314	1-247-882-11	CARBON	130K	5%	1/4W	
R315	1-247-850-11	CARBON	6.2K	5%	1/4W	
R331	1-249-430-11	CARBON	12K	5%	1/4W	
R401	1-247-881-00	CARBON	120K	5%	1/4W	
R402	1-247-815-91	CARBON	220	5%	1/4W	
R403	1-247-863-91	CARBON	22K	5%	1/4W	
R404	1-247-889-00	CARBON	270K	5%	1/4W	
R405	1-247-858-11	CARBON	13K	5%	1/4W	
R411	1-247-881-00	CARBON	120K	5%	1/4W	
R412	1-247-807-31	CARBON	100	5%	1/4W	
R414	1-247-882-11	CARBON	130K	5%	1/4W	
R415	1-247-850-11	CARBON	6.2K	5%	1/4W	
R431	1-249-430-11	CARBON	12K	5%	1/4W	
R601	1-247-815-91	CARBON	220	5%	1/4W	
R602	1-247-815-91	CARBON	220	5%	1/4W	
R608	1-247-815-91	CARBON	220	5%	1/4W	
R609	1-247-863-91	CARBON	22K	5%	1/4W	
R611	1-247-815-91	CARBON	220	5%	1/4W	
R612	1-247-815-91	CARBON	220	5%	1/4W	
⚠R621	1-212-851-00	FUSIBLE	5.6	5%	1/4W	F
⚠R622	1-212-851-00	FUSIBLE	5.6	5%	1/4W	F
R623	1-249-432-11	CARBON	18K	5%	1/4W	
R624	1-249-432-11	CARBON	18K	5%	1/4W	
R625	1-249-429-11	CARBON	10K	5%	1/4W	

AUDIO BD

Ref. No.	Part No.	Description			Remark
		< VARIABLE RESISTOR >			
RV301	1-238-598-11	RES, ADJ, CARBON 2.2K			
RV311	1-238-598-11	RES, ADJ, CARBON 2.2K			
RV341	1-241-768-11	RES, ADJ, CARBON 220K			
RV401	1-238-598-11	RES, ADJ, CARBON 2.2K			
RV411	1-238-598-11	RES, ADJ, CARBON 2.2K			
RV441	1-241-768-11	RES, ADJ, CARBON 220K			
		< TRANSFORMER >			
T621	1-423-980-11	TRANSFORMER, BIAS OSCILLATION			
**********					
	A-4724-653-A	BD BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C101	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C102	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C103	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C105	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C106	1-164-346-11	CERAMIC CHIP	1uF		16V
C107	1-164-346-11	CERAMIC CHIP	1uF		16V
C108	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C109	1-163-145-00	CERAMIC CHIP	0.0015uF	5%	50V
C110	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C111	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C112	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C113	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C115	1-126-607-11	ELECT CHIP	47uF	20%	4V
C116	1-126-607-11	ELECT CHIP	47uF	20%	4V
C117	1-126-209-11	ELECT CHIP	100uF	20%	4V
C118	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C119	1-163-110-00	CERAMIC CHIP	51PF	5%	50V
C120	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C121	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C122	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C123	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V
C124	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C126	1-124-779-00	ELECT CHIP	10uF	20%	16V
C130	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C140	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C141	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C151	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C153	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C154	1-110-501-11	CERAMIC CHIP	0.33uF	10%	16V
C156	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C157	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C159	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C161	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C162	1-128-065-11	ELECT CHIP	68uF	20%	10V
C170	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C171	1-163-038-91	CERAMIC CHIP	0.1uF		25V
		< CONNECTOR >			
CN101	1-770-706-11	CONNECTOR, FFC/FPC 23P			
CN102	1-777-937-11	CONNECTOR, FFC/FPC 16P			
		< IC >			
IC101	8-752-397-42	IC CXD3008Q			
IC102	8-759-549-28	IC BA5974FP-E2			
IC103	8-752-085-51	IC CXA2568M-T6			
IC104	8-759-398-25	IC TC7SH04F(TE85L)			
		< COIL >			
L101	1-414-234-22	INDUCTOR CHIP 0uH			
L102	1-410-377-31	INDUCTOR CHIP 4.7uH			
		< TRANSISTOR >			
Q101	8-729-010-08	TRANSISTOR MSB710-R			
		< RESISTOR >			
R101	1-216-077-00	METAL CHIP	15K	5%	1/10W
R102	1-216-097-91	RES,CHIP	100K	5%	1/10W
R103	1-216-077-00	METAL CHIP	15K	5%	1/10W
R104	1-216-085-00	METAL CHIP	33K	5%	1/10W
R105	1-216-073-00	METAL CHIP	10K	5%	1/10W
R106	1-216-049-91	RES,CHIP	1K	5%	1/10W
R107	1-216-073-00	METAL CHIP	10K	5%	1/10W
R108	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R109	1-216-121-91	RES,CHIP	1M	5%	1/10W
R110	1-216-295-91	SHORT	0		
R112	1-216-049-91	RES,CHIP	1K	5%	1/10W
R123	1-216-073-00	METAL CHIP	10K	5%	1/10W
R124	1-216-097-91	RES,CHIP	100K	5%	1/10W
R125	1-216-037-00	METAL CHIP	330	5%	1/10W
R126	1-216-037-00	METAL CHIP	330	5%	1/10W
R127	1-216-037-00	METAL CHIP	330	5%	1/10W
R131	1-216-037-00	METAL CHIP	330	5%	1/10W
R135	1-216-295-91	SHORT	0		
R136	1-216-295-91	SHORT	0		
R137	1-216-295-91	SHORT	0		
R138	1-216-295-91	SHORT	0		
R143	1-216-103-00	METAL CHIP	180K	5%	1/10W
R144	1-216-103-00	METAL CHIP	180K	5%	1/10W
R145	1-216-121-91	RES,CHIP	1M	5%	1/10W
R146	1-216-121-91	RES,CHIP	1M	5%	1/10W
R147	1-216-041-00	METAL CHIP	470	5%	1/10W
R148	1-216-001-00	METAL CHIP	10	5%	1/10W
R149	1-216-003-11	RES,CHIP	12	5%	1/10W
R150	1-216-073-00	METAL CHIP	10K	5%	1/10W
R154	1-216-025-91	RES,CHIP	100	5%	1/10W
R155	1-216-025-91	RES,CHIP	100	5%	1/10W
R156	1-216-025-91	RES,CHIP	100	5%	1/10W
R157	1-216-025-91	RES,CHIP	100	5%	1/10W
R158	1-216-111-00	METAL CHIP	390K	5%	1/10W
R159	1-216-089-91	RES,CHIP	47K	5%	1/10W
R161	1-216-308-00	METAL CHIP	4.7	5%	1/10W
R162	1-216-101-00	METAL CHIP	150K	5%	1/10W
R171	1-216-025-91	RES,CHIP	100	5%	1/10W
R172	1-216-025-91	RES,CHIP	100	5%	1/10W
R173	1-216-025-91	RES,CHIP	100	5%	1/10W

Ref. No.	Part No.	Description			Remark
R175	1-216-025-91	RES,CHIP	100	5%	1/10W
R203	1-216-025-91	RES,CHIP	100	5%	1/10W
R204	1-216-025-91	RES,CHIP	100	5%	1/10W
R205	1-216-025-91	RES,CHIP	100	5%	1/10W
R206	1-216-295-91	SHORT	0		
		< SWITCH >			
S101	1-572-085-11	SWITCH, LEAF (LIMIT SW)			

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*	1-672-186-11	CD-L BOARD				
		**********				
		< CONNECTOR >				
* CN812	1-568-944-11	PIN, CONNECTOR 6P				
		< DIODE >				
D641	8-719-058-04	DIODE SEL5223S-TP15 (NON STOP)				
		< RESISTOR >				
R731	1-249-410-11	CARBON	270	5%	1/4W	F
R732	1-249-411-11	CARBON	330	5%	1/4W	
R733	1-249-413-11	CARBON	470	5%	1/4W	F
R734	1-249-414-11	CARBON	560	5%	1/4W	F
R735	1-249-415-11	CARBON	680	5%	1/4W	F
R736	1-249-417-11	CARBON	1K	5%	1/4W	F
R737	1-249-418-11	CARBON	1.2K	5%	1/4W	F
R738	1-249-420-11	CARBON	1.8K	5%	1/4W	F
R739	1-249-422-11	CARBON	2.7K	5%	1/4W	F
R740	1-247-843-11	CARBON	3.3K	5%	1/4W	
R741	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R742	1-249-427-11	CARBON	6.8K	5%	1/4W	F
R743	1-249-429-11	CARBON	10K	5%	1/4W	
R744	1-249-431-11	CARBON	15K	5%	1/4W	
R745	1-249-407-11	CARBON	150	5%	1/4W	F
		< SWITCH >				
S661	1-554-303-21	SWITCH, TACTILE (DISC 1)				
S662	1-554-303-21	SWITCH, TACTILE (DISC 2)				
S663	1-554-303-21	SWITCH, TACTILE (DISC 3)				
S664	1-554-303-21	SWITCH, TACTILE (DISC 4)				
S665	1-554-303-21	SWITCH, TACTILE (DISC 5)				
S666	1-554-303-21	SWITCH, TACTILE (FLASH)				
S667	1-554-303-21	SWITCH, TACTILE (NEXT)				
S668	1-554-303-21	SWITCH, TACTILE (PREV)				
S669	1-554-303-21	SWITCH, TACTILE (RETURN)				
S670	1-554-303-21	SWITCH, TACTILE (SELECT)				
S671	1-554-303-21	SWITCH, TACTILE (ACTIVE)				
S672	1-554-303-21	SWITCH, TACTILE (EDIT)				
S673	1-554-303-21	SWITCH, TACTILE (NON-STOP)				
S674	1-554-303-21	SWITCH, TACTILE (LOOP)				

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Ref. No.	Part No.	Description			Remark
*	A-4673-765-A	CD MOTOR BOARD, COMPLETE			
		**********			
*	4-980-385-01	HOLDER (SW)			
		< CAPACITOR >			
C201	1-124-907-11	ELECT	10uF	20%	50V
C202	1-164-159-21	CERAMIC	0.1uF		50V
C203	1-124-907-11	ELECT	10uF	20%	50V
		< CONNECTOR >			
* CN201	1-568-947-11	PIN, CONNECTOR 9P			
		< IC >			
IC201	8-759-365-94	IC TA8409S			
		< COIL >			
L201	1-408-117-00	INDUCTOR	10uH		
		< RESISTOR >			
R205	1-249-427-11	CARBON	6.8K	5%	1/4W F
R206	1-249-425-11	CARBON	4.7K	5%	1/4W F
		< SWITCH >			
S201	1-762-587-11	SWITCH, PUSH (1 KEY)(UP SWITCH)			

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*	1-672-187-12	CD-R BOARD				
		**********				
		< CAPACITOR >				
C613	1-162-306-11	CERAMIC	0.01uF	20%	16V	
C614	1-162-306-11	CERAMIC	0.01uF	20%	16V	
		< CONNECTOR >				
CN703	1-785-333-11	PIN, CONNECTOR (LIGHT ANGLE)7P				
		< DIODE >				
D700	8-719-056-13	DIODE SML79423C-TP15 (▮▮/▷)				
		< RESISTOR >				
R751	1-247-843-11	CARBON	3.3K	5%	1/4W	
R752	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R753	1-249-427-11	CARBON	6.8K	5%	1/4W	F
R754	1-249-429-11	CARBON	10K	5%	1/4W	
R755	1-249-431-11	CARBON	15K	5%	1/4W	
R756	1-249-434-11	CARBON	27K	5%	1/4W	
R757	1-249-438-11	CARBON	56K	5%	1/4W	
R758	1-247-804-11	CARBON	75	5%	1/4W	
R759	1-247-804-11	CARBON	75	5%	1/4W	
		< SWITCH >				
S676	1-554-303-21	SWITCH, TACTILE (PLAY MODE)				
S677	1-554-303-21	SWITCH, TACTILE (REPEAT)				
S678	1-554-303-21	SWITCH, TACTILE (◁◁)				

CD-R DOOR SW FRONT INPUT JACK

Ref. No.	Part No.	Description			Remark
S679	1-554-303-21	SWITCH, TACTILE (▷▷)			
S681	1-554-303-21	SWITCH, TACTILE (▷II)			
S682	1-554-303-21	SWITCH, TACTILE (□)			
S683	1-554-303-21	SWITCH, TACTILE (DISC SKIP)			
S702	1-473-534-11	ENCODER, ROTARY (JOG ◀◀ AMS ▶▶I)			
**********					
*	1-672-191-12	DOOR SW BOARD			
		**********			
		< CAPACITOR >			
C691	1-162-306-11	CERAMIC	0.01uF	20%	16V
		< SWITCH >			
S691	1-771-057-11	SWITCH, PUSH (1 KEY)(⏏ OPEN)			
**********					
*	1-672-190-12	FRONT INPUT BOARD			
		**********			
		< CAPACITOR >			
C801	1-162-294-31	CERAMIC	0.001uF	10%	50V
C802	1-162-294-31	CERAMIC	0.001uF	10%	50V
C811	1-162-282-31	CERAMIC	100PF	10%	50V
C812	1-164-159-21	CERAMIC	0.1uF		50V
C813	1-126-960-11	ELECT	1uF	20%	50V
		< FLUORESCENT INDICATOR >			
FL803	1-424-228-11	FILTER, NOISE			
		< JACK >			
J804	1-764-592-41	JACK 3P (AUDIO L/R, VIDEO)			
		< RESISTOR >			
R801	1-249-417-11	CARBON	1K	5%	1/4W F
R802	1-249-437-11	CARBON	47K	5%	1/4W
R803	1-249-417-11	CARBON	1K	5%	1/4W F
R804	1-249-437-11	CARBON	47K	5%	1/4W
R805	1-247-804-11	CARBON	75	5%	1/4W
**********					
	A-4417-554-A	JACK BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C803	1-162-306-11	CERAMIC	0.01uF	20%	16V
C804	1-162-306-11	CERAMIC	0.01uF	20%	16V
C805	1-126-957-11	ELECT	0.22uF	20%	50V
C807	1-162-294-31	CERAMIC	0.001uF	10%	50V
C808	1-162-294-31	CERAMIC	0.001uF	10%	50V
C809	1-164-159-21	CERAMIC	0.1uF		50V
C810	1-164-159-21	CERAMIC	0.1uF		50V
C856	1-162-294-31	CERAMIC	0.001uF	10%	50V
C857	1-162-286-21	CERAMIC	220PF	10%	50V
C858	1-126-964-11	ELECT	10uF	20%	50V

Ref. No.	Part No.	Description			Remark
C859	1-126-961-11	ELECT	2.2uF	20%	50V
C860	1-162-215-31	CERAMIC	47PF	5%	50V
C861	1-162-282-31	CERAMIC	100PF	10%	50V
C862	1-126-961-11	ELECT	2.2uF	20%	50V
C863	1-126-960-11	ELECT	1uF	20%	50V
C864	1-126-964-11	ELECT	10uF	20%	50V
C865	1-126-960-11	ELECT	1uF	20%	50V
C866	1-162-305-11	CERAMIC	0.0068uF	30%	16V
C867	1-162-294-31	CERAMIC	0.001uF	10%	50V
C868	1-136-495-11	FILM	0.068uF	5%	50V
C869	1-126-959-11	ELECT	0.47uF	20%	50V
C870	1-126-959-11	ELECT	0.47uF	20%	50V
C871	1-126-967-11	ELECT	47uF	20%	50V
C872	1-162-306-11	CERAMIC	0.01uF	20%	16V
C873	1-104-664-11	ELECT	47uF	20%	25V
C874	1-136-495-11	FILM	0.068uF	5%	50V
C875	1-162-305-11	CERAMIC	0.0068uF	30%	16V
C876	1-162-294-31	CERAMIC	0.001uF	10%	50V
C877	1-136-167-00	FILM	0.15uF	5%	50V
C878	1-126-960-11	ELECT	1uF	20%	50V
C879	1-161-494-00	CERAMIC	0.022uF		25V
C880	1-126-961-11	ELECT	2.2uF	20%	50V
C882	1-162-290-31	CERAMIC	470PF	10%	50V
C883	1-162-306-11	CERAMIC	0.01uF	20%	16V
		< CONNECTOR >			
CN802	1-785-316-11	PIN, CONNECTOR (STRAIGHT) 4P			
		< DIODE >			
D851	8-719-200-82	DIODE 11ES2			
D852	8-719-200-82	DIODE 11ES2			
D853	8-719-200-82	DIODE 11ES2			
		< GROUND TERMINAL >			
* EPT802	1-537-738-21	TERMINAL, EARTH			
		< FLUORESCENT INDICATOR >			
FL801	1-424-228-11	FILTER, NOISE			
FL802	1-424-228-11	FILTER, NOISE			
		< IC >			
IC850	8-759-634-50	IC M5218AL			
IC851	8-759-450-96	IC M65850P			
		< JACK >			
J801	1-770-226-11	JACK (LARGE TYPE)(MIC 1)			
J802	1-770-226-11	JACK (LARGE TYPE)(MIC 2)			
J803	1-770-226-11	JACK (LARGE TYPE)(PHONES)			
		< COIL >			
L851	1-410-521-11	INDUCTOR	100uH		
		< RESISTOR >			
R806	1-249-429-11	CARBON	10K	5%	1/4W
R807	1-249-429-11	CARBON	10K	5%	1/4W
R808	1-249-417-11	CARBON	1K	5%	1/4W F

Ref. No.	Part No.	Description			Remark
R809	1-249-417-11	CARBON	1K	5%	1/4W F
R810	1-247-807-31	CARBON	100	5%	1/4W
R850	1-247-807-31	CARBON	100	5%	1/4W
R852	1-249-441-11	CARBON	100K	5%	1/4W
R853	1-249-417-11	CARBON	1K	5%	1/4W F
R854	1-249-437-11	CARBON	47K	5%	1/4W
R855	1-249-429-11	CARBON	10K	5%	1/4W
R856	1-247-889-00	CARBON	270K	5%	1/4W
R857	1-247-807-31	CARBON	100	5%	1/4W
R858	1-247-863-91	CARBON	22K	5%	1/4W
R859	1-247-863-91	CARBON	22K	5%	1/4W
R860	1-247-863-91	CARBON	22K	5%	1/4W
R861	1-247-881-00	CARBON	120K	5%	1/4W
R862	1-247-863-91	CARBON	22K	5%	1/4W
R863	1-247-863-91	CARBON	22K	5%	1/4W
R864	1-247-863-91	CARBON	22K	5%	1/4W
R865	1-249-437-11	CARBON	47K	5%	1/4W
R866	1-249-431-11	CARBON	15K	5%	1/4W
R867	1-249-431-11	CARBON	15K	5%	1/4W
		< VARIABLE RESISTOR >			
RV850	1-225-587-11	RES, VAR, CARBON 50K (MIC VOL)			
RV851	1-225-587-11	RES, VAR, CARBON 50K (ECHO LEVEL)			

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	A-2007-800-A	LEAF SW BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C1001	1-107-716-11	ELECT	33uF	20%	10V
		< CONNECTOR >			
CN1001	1-784-459-11	CONNECTOR, FFC/FPC 17P			
		< DIODE >			
D1001	8-719-991-33	DIODE 1SS133T-77			
D1002	8-719-991-33	DIODE 1SS133T-77			
		< CABLE HOLDER >			
* DM1001	1-784-581-11	HOLDER, CABLE (2.5MM PITCH) 4P			
		< IC >			
IC1001	8-749-014-38	IC PHOTO INTERRUPTER SG-264			
IC1002	8-749-014-38	IC PHOTO INTERRUPTER SG-264			
		< TRANSISTOR >			
Q1001	8-729-029-56	TRANSISTOR DTA144ESA			
Q1001	8-729-900-65	TRANSISTOR DTA144ES			
		< RESISTOR >			
R907	1-249-441-11	CARBON	100K	5%	1/4W
R1001	1-247-815-91	CARBON	220	5%	1/4W
R1002	1-247-815-91	CARBON	220	5%	1/4W
R1003	1-249-414-11	CARBON	560	5%	1/4W F
R1004	1-247-834-11	CARBON	1.3K	5%	1/4W

Ref. No.	Part No.	Description			Remark
R1005	1-247-818-91	CARBON	300	5%	1/4W
R1006	1-247-864-11	CARBON	24K	5%	1/4W
R1007	1-247-856-00	CARBON	11K	5%	1/4W
R1008	1-249-417-11	CARBON	1K	5%	1/4W F
		< VARIABLE RESISTOR >			
RV1001	1-241-785-11	RES, ADJ, CARBON 10K			
RV1002	1-241-785-11	RES, ADJ, CARBON 10K			
		< SWITCH >			
S1001	1-570-953-11	SWITCH, PUSH (1 KEY)(A PLAY)			
S1002	1-570-953-11	SWITCH, PUSH (1 KEY)(B PLAY)			
S1003	1-771-333-11	SWITCH, LEAF (A HALF)			
S1004	1-771-205-11	SWITCH, LEAF (A $\overline{120}$/70)			
S1005	1-771-205-11	SWITCH, LEAF (REC A)			
S1006	1-771-333-11	SWITCH, LEAF (B HALF)			
S1008	1-771-205-11	SWITCH, LEAF (B $\overline{120}$/70)			
S1009	1-771-205-11	SWITCH, LEAF (REC B)			

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*	1-659-059-13	LED (CD) BOARD			
		**********			
		< DIODE >			
D201	8-719-032-98	DIODE SEL5820A (DISC NO.)			
		< TRANSISTOR >			
Q201	8-729-119-78	TRANSISTOR 2SC403SP-51			
		< RESISTOR >			
R201	1-247-863-91	CARBON	22K	5%	1/4W
R202	1-249-411-11	CARBON	330	5%	1/4W
R203	1-249-437-11	CARBON	47K	5%	1/4W

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*	1-672-195-11	LED (PANEL) BOARD			
		**********			
		< DIODE >			
D671	8-719-058-03	DIODE SEL5423E-TP15 (DISC TABLE)			
D672	8-719-058-03	DIODE SEL5423E-TP15 (DISC TABLE)			
D673	8-719-058-03	DIODE SEL5423E-TP15 (DISC TABLE)			
D674	8-719-058-03	DIODE SEL5423E-TP15 (DISC TABLE)			
D675	8-719-058-03	DIODE SEL5423E-TP15 (DISC TABLE)			
		< RESISTOR >			
R600	1-249-410-11	CARBON	270	5%	1/4W F

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MAIN

Ref. No.	Part No.	Description			Remark
	A-4417-464-A	MAIN BOARD, COMPLETE (VR70)			
		**********			
	A-4417-549-A	MAIN BOARD, COMPLETE (VR50:MY,SP)			
		**********			
	A-4419-665-A	MAIN BOARD, COMPLETE (VR50:EA)			
		**********			
	4-875-327-31	HEAT SINK			
	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S			
		< CAPACITOR >			
C111	1-137-195-11	FILM	0.56uF	5%	50V
C112	1-136-158-00	FILM	0.027uF	5%	50V
C113	1-136-167-00	FILM	0.15uF	5%	50V
C114	1-130-480-00	MYLAR	0.0056uF	5%	50V
C115	1-136-159-00	FILM	0.033uF	5%	50V
C116	1-130-473-00	MYLAR	0.0015uF	5%	50V
C117	1-136-153-00	FILM	0.01uF	5%	50V
C118	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C119	1-130-479-00	MYLAR	0.0047uF	5%	50V
C120	1-130-477-00	MYLAR	0.0033uF	5%	50V
C121	1-126-964-11	ELECT	10uF	20%	50V
C122	1-163-006-11	CERAMIC CHIP	560PF	10%	50V
C123	1-136-169-00	FILM	0.22uF	5%	50V
C124	1-136-169-00	FILM	0.22uF	5%	50V
C125	1-126-964-11	ELECT	10uF	20%	50V
C131	1-104-664-11	ELECT	47uF	20%	16V
C132	1-104-664-11	ELECT	47uF	20%	16V
C135	1-126-964-11	ELECT	10uF	20%	50V
C161	1-137-195-11	FILM	0.56uF	5%	50V
C162	1-136-158-00	FILM	0.027uF	5%	50V
C163	1-136-167-00	FILM	0.15uF	5%	50V
C164	1-130-480-00	MYLAR	0.0056uF	5%	50V
C165	1-136-159-00	FILM	0.033uF	5%	50V
C166	1-130-473-00	MYLAR	0.0015uF	5%	50V
C167	1-136-153-00	FILM	0.01uF	5%	50V
C168	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C169	1-130-479-00	MYLAR	0.0047uF	5%	50V
C170	1-130-477-00	MYLAR	0.0033uF	5%	50V
C171	1-126-964-11	ELECT	10uF	20%	50V
C172	1-163-006-11	CERAMIC CHIP	560PF	10%	50V
C173	1-136-169-00	FILM	0.22uF	5%	50V
C174	1-136-169-00	FILM	0.22uF	5%	50V
C175	1-126-964-11	ELECT	10uF	20%	50V
C176	1-136-495-11	FILM	0.068uF	5%	50V
C177	1-136-153-00	FILM	0.01uF	5%	50V
C181	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C182	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C183	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C191	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C192	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C193	1-126-964-11	ELECT	10uF	20%	50V
C301	1-126-960-11	ELECT	1uF	20%	50V
C302	1-130-479-00	MYLAR	0.0047uF	5%	50V
C303	1-136-165-00	FILM	0.1uF	5%	50V
C304	1-136-165-00	FILM	0.1uF	5%	50V

Ref. No.	Part No.	Description			Remark
C305	1-126-964-11	ELECT	10uF	20%	50V
C306	1-126-960-11	ELECT	1uF	20%	50V
C307	1-126-959-11	ELECT	0.47uF	20%	50V
C308	1-126-964-11	ELECT	10uF	20%	50V
C309	1-137-194-81	FILM	0.47uF	5%	50V
C310	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C311	1-126-964-11	ELECT	10uF	20%	50V
C312	1-126-959-11	ELECT	0.47uF	20%	50V
C313	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C314	1-126-964-11	ELECT	10uF	20%	50V
C315	1-126-963-11	ELECT	4.7uF	20%	50V
C316	1-104-665-11	ELECT	100uF	20%	10V
C317	1-104-665-11	ELECT	100uF	20%	10V
C320	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C333	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C334	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C351	1-126-960-11	ELECT	1uF	20%	50V
C352	1-130-479-00	MYLAR	0.0047uF	5%	50V
C353	1-136-165-00	FILM	0.1uF	5%	50V
C354	1-136-165-00	FILM	0.1uF	5%	50V
C355	1-126-964-11	ELECT	10uF	20%	50V
C356	1-126-960-11	ELECT	1uF	20%	50V
C357	1-126-959-11	ELECT	0.47uF	20%	50V
C358	1-126-964-11	ELECT	10uF	20%	50V
C359	1-137-194-81	FILM	0.47uF	5%	50V
C401	1-126-961-11	ELECT	2.2uF	20%	50V
C411	1-163-033-91	CERAMIC CHIP	0.022uF		50V
C412	1-163-033-91	CERAMIC CHIP	0.022uF		50V
C413	1-126-916-11	ELECT	1000uF	20%	6.3V
C414	1-126-916-11	ELECT	1000uF	20%	6.3V
C415	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C416	1-126-925-11	ELECT	470uF	20%	10V
C431	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C451	1-126-961-11	ELECT	2.2uF	20%	50V
C510	1-163-233-11	CERAMIC CHIP	18PF	5%	50V
C511	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C516	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C562	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C564	1-104-665-11	ELECT	100uF	20%	10V
C598	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C599	1-104-665-11	ELECT	100uF	20%	10V
C601	1-163-003-11	CERAMIC CHIP	330PF	10%	50V
C602	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C603	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C604	1-126-961-11	ELECT	2.2uF	20%	50V
C605	1-130-479-00	MYLAR	0.0047uF	5%	50V
C606	1-130-473-00	MYLAR	0.0015uF	5%	50V
C607	1-136-159-00	FILM	0.033uF	5%	50V
C608	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C609	1-126-933-11	ELECT	100uF	20%	16V
C651	1-163-003-11	CERAMIC CHIP	330PF	10%	50V
C652	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C653	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C654	1-126-961-11	ELECT	2.2uF	20%	50V
C655	1-130-479-00	MYLAR	0.0047uF	5%	50V
C656	1-130-473-00	MYLAR	0.0015uF	5%	50V
C657	1-136-159-00	FILM	0.033uF	5%	50V

Ref. No.	Part No.	Description			Remark
C658	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C659	1-126-933-11	ELECT	100uF	20%	16V
C701	1-163-001-11	CERAMIC CHIP	220PF	10%	50V
C702	1-163-001-11	CERAMIC CHIP	220PF	10%	50V
C703	1-163-001-11	CERAMIC CHIP	220PF	10%	50V
C721	1-126-960-11	ELECT	1uF	20%	50V
C722	1-126-926-11	ELECT	1000uF	20%	10V
C724	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C725	1-126-960-11	ELECT	1uF	20%	50V
C751	1-163-001-11	CERAMIC CHIP	220PF	10%	50V
C752	1-163-001-11	CERAMIC CHIP	220PF	10%	50V
C753	1-163-001-11	CERAMIC CHIP	220PF	10%	50V
C772	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C774	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C777	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C778	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C782	1-104-665-11	ELECT	100uF	20%	10V
C803	1-126-964-11	ELECT	10uF	20%	50V
C804	1-136-165-00	FILM	0.1uF	5%	50V
C805	1-136-165-00	FILM	0.1uF	5%	50V
C806	1-126-916-11	ELECT	1000uF	20%	6.3V
C808	1-109-953-11	ELECT	2.2uF	20%	50V
C902	1-126-939-11	ELECT	10000uF	20%	16V
C903	1-126-964-11	ELECT	10uF	20%	50V
C904	1-126-964-11	ELECT	10uF	20%	50V
C905	1-126-924-11	ELECT	330uF	20%	10V
C911	1-126-964-11	ELECT	10uF	20%	50V
C912	1-126-916-11	ELECT	1000uF	20%	6.3V
C913	1-104-665-11	ELECT	100uF	20%	10V
C914	1-104-656-11	ELECT	2200uF	20%	6.3V
C921	1-126-964-11	ELECT	10uF	20%	50V
C922	1-126-964-11	ELECT	10uF	20%	50V
C932	1-126-964-11	ELECT	10uF	20%	50V
C933	1-126-933-11	ELECT	100uF	20%	16V
C934	1-126-964-11	ELECT	10uF	20%	50V
C935	1-126-767-11	ELECT	1000uF	20%	16V
C936	1-126-964-11	ELECT	10uF	20%	50V
C937	1-104-665-11	ELECT	100uF	20%	10V
C938	1-126-933-11	ELECT	100uF	20%	16V
C952	1-126-943-11	ELECT	2200uF	20%	25V
C953	1-126-964-11	ELECT	10uF	20%	50V
C954	1-126-964-11	ELECT	10uF	20%	50V
C955	1-126-924-11	ELECT	330uF	20%	10V
C961	1-163-038-91	CERAMIC CHIP	0.1uF		25V
		< CONNECTOR >			
CN303	1-784-776-11	CONNECTOR, FFC 15P			
CN304	1-784-778-11	CONNECTOR, FFC 17P			
CN411	1-750-745-11	CONNECTOR, FFC/FPC 13P			
CN412	1-785-321-11	PIN, CONNECTOR (STRAIGHT) 9P			
CN431	1-784-776-11	CONNECTOR, FFC 15P			
CN441	1-750-745-11	CONNECTOR, FFC/FPC 13P			
CN452	1-785-316-11	PIN, CONNECTOR (STRAIGHT) 4P			
* CN701	1-564-505-11	PLUG, CONNECTOR 2P			
CN702	1-691-767-11	PLUG (MICRO CONNECTOR) 5P			
CN901	1-778-982-11	CONNECTOR, BOARD TO BOARD 13P			

Ref. No.	Part No.	Description	Remark
* CN902	1-770-729-11	CONNECTOR, BOARD TO BOARD 10P	
* CN903	1-564-518-11	PLUG, CONNECTOR 3P	
		< DIODE >	
D191	8-719-988-61	DIODE 1SS355TE-17	
D192	8-719-988-61	DIODE 1SS355TE-17	
D193	8-719-988-61	DIODE 1SS355TE-17	
D194	8-719-988-61	DIODE 1SS355TE-17	
D333	8-719-988-61	DIODE 1SS355TE-17	
D334	8-719-988-61	DIODE 1SS355TE-17	
D335	8-719-988-61	DIODE 1SS355TE-17	
D336	8-719-988-61	DIODE 1SS355TE-17	
D401	8-719-988-61	DIODE 1SS355TE-17	
D501	8-719-988-61	DIODE 1SS355TE-17	
D534	8-719-988-61	DIODE 1SS355TE-17	
D801	8-719-988-61	DIODE 1SS355TE-17	
D802	8-719-988-61	DIODE 1SS355TE-17	
D803	8-719-988-61	DIODE 1SS355TE-17	
D804	8-719-988-61	DIODE 1SS355TE-17	
D805	8-719-988-61	DIODE 1SS355TE-17	
D806	8-719-988-61	DIODE 1SS355TE-17	
D807	8-719-988-61	DIODE 1SS355TE-17	
D808	8-719-210-33	DIODE EC10DS2	
D808	8-719-053-18	DIODE 1SR154-400TE-25	
D911	8-719-988-61	DIODE 1SS355TE-17	
D912	8-719-210-33	DIODE EC10DS2	
D931	8-719-210-33	DIODE EC10DS2	
D951	8-719-988-61	DIODE 1SS355TE-17	
		< FERRITE BEAD >	
FB411	1-414-772-11	FERRITE 0UH	
FB412	1-414-772-11	FERRITE 0UH	
FB413	1-414-551-11	FERRITE 0UH	
FB415	1-414-772-11	FERRITE 0UH	
		< FLUORESCENT INDICATOR >	
FL501	1-233-289-21	FILTER, EMI (SMD)	
FL502	1-233-289-21	FILTER, EMI (SMD)	
FL503	1-233-289-21	FILTER, EMI (SMD)	
		< IC >	
IC101	8-759-571-54	IC M62493FP	
IC181	8-759-009-06	IC MC14052BF	
IC191	8-759-571-53	IC BA7615N	
IC301	8-759-495-26	IC HA12215	
IC501	8-759-588-91	IC M30622MA-A09FP	
IC601	8-759-636-55	IC M5218AFP	
IC781	8-749-923-04	IC TOTX178	
IC801	8-759-635-63	IC M51943BSL	
IC901	8-759-604-86	IC M5F7807L	
IC911	8-759-231-53	IC TA7805S	
IC921	8-759-231-53	IC TA7805S	
IC931	8-759-604-38	IC M5F78M10	
IC932	8-759-701-79	IC NJM7812FA	
IC933	8-759-604-86	IC M5F7807L	
IC951	8-759-604-90	IC M5F7907L	

MAIN

Ref. No.	Part No.	Description	Remark
		< JACK >	
J701	1-766-558-41	JACK, PIN 8P (VIDEO 1 (AUDIO) IN, PHONO IN, MD OUT)	
J702	1-770-336-11	JACK, PIN 2P (VIDEO 1 (VIDEO) IN, VIDEO OUT)	
		< JUMPER RESISTOR >	
JR1	1-216-295-91	SHORT 0	
JR2	1-216-296-91	SHORT 0	
JR3	1-216-296-91	SHORT 0	
JR4	1-216-295-91	SHORT 0	
JR5	1-216-295-91	SHORT 0	
JR6	1-216-296-91	SHORT 0	
JR7	1-216-296-91	SHORT 0	
JR8	1-216-296-91	SHORT 0	
JR9	1-216-295-91	SHORT 0	
JR10	1-216-296-91	SHORT 0	
JR11	1-216-296-91	SHORT 0	
JR181	1-216-295-91	SHORT 0	
JR182	1-216-295-91	SHORT 0	
JR192	1-216-295-91	SHORT 0	
JR519	1-216-295-91	SHORT 0	
JR532	1-216-295-91	SHORT 0	
JR533	1-216-295-91	SHORT 0	
JR556	1-216-295-91	SHORT 0	
JR594	1-216-295-91	SHORT 0	
JR703	1-216-295-91	SHORT 0	
JR907	1-216-295-91	SHORT 0	
JR911	1-216-295-91	SHORT 0	
JR921	1-216-296-91	SHORT 0	
		< COIL >	
L781	1-412-032-11	INDUCTOR CHIP 100uH	
		< TRANSISTOR >	
Q111	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q112	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q113	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q115	8-729-029-86	TRANSISTOR DTC124ESA	
Q161	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q162	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q163	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q165	8-729-029-86	TRANSISTOR DTC124ESA	
Q331	8-729-118-00	TRANSISTOR 2SB1116-L	
Q332	8-729-029-66	TRANSISTOR DTC114ESA	
Q333	8-729-118-00	TRANSISTOR 2SB1116-L	
Q334	8-729-029-66	TRANSISTOR DTC114ESA	
Q335	8-729-029-66	TRANSISTOR DTC114ESA	
Q336	8-729-116-59	TRANSISTOR 2SB1068TP	
Q337	8-729-045-21	TRANSISTOR 2SD1513TP-LK	
Q338	8-729-029-21	TRANSISTOR DTA114ESA-TP	
Q339	8-729-029-66	TRANSISTOR DTC114ESA	
Q340	8-729-116-59	TRANSISTOR 2SB1068TP	
Q341	8-729-045-21	TRANSISTOR 2SD1513TP-LK	
Q342	8-729-029-21	TRANSISTOR DTA114ESA-TP	
Q343	8-729-029-66	TRANSISTOR DTC114ESA	
Q801	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q802	8-729-029-21	TRANSISTOR DTA114ESA-TP	
Q803	8-729-029-21	TRANSISTOR DTA114ESA-TP	
Q804	8-729-029-40	TRANSISTOR DTA124ESA	
Q901	8-729-040-20	TRANSISTOR RT1P137L-TP	
Q902	8-729-029-40	TRANSISTOR DTA124ESA	
Q903	8-729-040-19	TRANSISTOR RT1N137L-TP	
Q904	8-729-029-86	TRANSISTOR DTC124ESA	
Q905	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q906	8-729-029-68	TRANSISTOR DTC114TSA	
Q911	8-729-040-20	TRANSISTOR RT1P137L-TP	
Q912	8-729-029-86	TRANSISTOR DTC124ESA	
Q914	8-729-029-86	TRANSISTOR DTC124ESA	
Q921	8-729-018-59	TRANSISTOR 2SB1375-LC	
Q931	8-729-040-20	TRANSISTOR RT1P137L-TP	
Q932	8-729-029-86	TRANSISTOR DTC124ESA	
Q961	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q962	8-729-118-00	TRANSISTOR 2SB1116-L	
		< RESISTOR >	
R111	1-216-073-00	METAL CHIP 10K 5%	1/10W
R112	1-216-121-91	RES,CHIP 1M 5%	1/10W
R113	1-216-101-00	METAL CHIP 150K 5%	1/10W (VR70)
R113	1-216-103-00	METAL CHIP 180K 5%	1/10W (VR50)
R114	1-216-043-91	RES,CHIP 560 5%	1/10W
R115	1-216-073-00	METAL CHIP 10K 5%	1/10W
R116	1-216-091-00	METAL CHIP 56K 5%	1/10W
R117	1-216-073-00	METAL CHIP 10K 5%	1/10W
R118	1-216-089-91	RES,CHIP 47K 5%	1/10W
R119	1-216-057-00	METAL CHIP 2.2K 5%	1/10W
R120	1-216-097-91	RES,CHIP 100K 5%	1/10W
R121	1-216-073-00	METAL CHIP 10K 5%	1/10W
R122	1-216-295-91	SHORT 0	
R123	1-216-101-00	METAL CHIP 150K 5%	1/10W (VR70)
R123	1-216-107-00	METAL CHIP 270K 5%	1/10W (VR50)
R124	1-216-057-00	METAL CHIP 2.2K 5%	1/10W
R125	1-216-061-00	METAL CHIP 3.3K 5%	1/10W
R126	1-216-057-00	METAL CHIP 2.2K 5%	1/10W
R127	1-216-101-00	METAL CHIP 150K 5%	1/10W (VR70)
R127	1-216-111-00	METAL CHIP 390K 5%	1/10W (VR50)
R129	1-216-121-91	RES,CHIP 1M 5%	1/10W
R131	1-216-025-91	RES,CHIP 100 5%	1/10W
R132	1-216-025-91	RES,CHIP 100 5%	1/10W
R133	1-216-025-91	RES,CHIP 100 5%	1/10W
R161	1-216-073-00	METAL CHIP 10K 5%	1/10W
R162	1-216-121-91	RES,CHIP 1M 5%	1/10W
R163	1-216-101-00	METAL CHIP 150K 5%	1/10W (VR70)
R163	1-216-103-00	METAL CHIP 180K 5%	1/10W (VR50)
R164	1-216-043-91	RES,CHIP 560 5%	1/10W
R165	1-216-073-00	METAL CHIP 10K 5%	1/10W
R166	1-216-091-00	METAL CHIP 56K 5%	1/10W

Ref. No.	Part No.	Description			Remark
R167	1-216-073-00	METAL CHIP	10K	5%	1/10W
R168	1-216-089-91	RES,CHIP	47K	5%	1/10W
R169	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R170	1-216-097-91	RES,CHIP	100K	5%	1/10W
R171	1-216-073-00	METAL CHIP	10K	5%	1/10W
R172	1-216-295-91	SHORT	0		
R173	1-216-101-00	METAL CHIP	150K	5%	1/10W (VR70)
R173	1-216-107-00	METAL CHIP	270K	5%	1/10W (VR50)
R174	1-216-073-00	METAL CHIP	10K	5%	1/10W
R175	1-216-097-91	RES,CHIP	100K	5%	1/10W
R177	1-216-101-00	METAL CHIP	150K	5%	1/10W (VR70)
R177	1-216-111-00	METAL CHIP	390K	5%	1/10W (VR50)
R178	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R179	1-216-121-91	RES,CHIP	1M	5%	1/10W
R301	1-216-085-00	METAL CHIP	33K	5%	1/10W
R302	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R303	1-216-025-91	RES,CHIP	100	5%	1/10W
R304	1-216-025-91	RES,CHIP	100	5%	1/10W
R305	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R306	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R307	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R308	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R309	1-216-081-00	METAL CHIP	22K	5%	1/10W
R311	1-216-121-91	RES,CHIP	1M	5%	1/10W
R312	1-216-102-00	RES,CHIP	160K	5%	1/10W
R313	1-216-097-91	RES,CHIP	100K	5%	1/10W
R315	1-216-073-00	METAL CHIP	10K	5%	1/10W
R316	1-216-079-00	METAL CHIP	18K	5%	1/10W
R317	1-216-073-00	METAL CHIP	10K	5%	1/10W
R318	1-216-073-00	METAL CHIP	10K	5%	1/10W
R319	1-216-111-00	METAL CHIP	390K	5%	1/10W
R321	1-216-059-00	METAL CHIP	2.7K	5%	1/10W
R322	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R332	1-216-045-00	METAL CHIP	680	5%	1/10W
R333	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R334	1-216-045-00	METAL CHIP	680	5%	1/10W
R335	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R336	1-216-089-91	RES,CHIP	47K	5%	1/10W
R337	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R338	1-216-045-00	METAL CHIP	680	5%	1/10W
R339	1-216-089-91	RES,CHIP	47K	5%	1/10W
R340	1-216-089-91	RES,CHIP	47K	5%	1/10W
R341	1-216-045-00	METAL CHIP	680	5%	1/10W
R342	1-216-089-91	RES,CHIP	47K	5%	1/10W
R343	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R344	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R345	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R346	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R347	1-216-045-00	METAL CHIP	680	5%	1/10W
R348	1-216-045-00	METAL CHIP	680	5%	1/10W
R351	1-216-085-00	METAL CHIP	33K	5%	1/10W
R352	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R353	1-216-025-91	RES,CHIP	100	5%	1/10W
R354	1-216-025-91	RES,CHIP	100	5%	1/10W
R355	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R356	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R357	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R358	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R359	1-216-085-00	METAL CHIP	33K	5%	1/10W
R371	1-216-089-91	RES,CHIP	47K	5%	1/10W
R372	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R373	1-216-049-91	RES,CHIP	1K	5%	1/10W
R374	1-216-089-91	RES,CHIP	47K	5%	1/10W
R375	1-216-094-00	RES,CHIP	75K	5%	1/10W
R376	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R377	1-216-089-91	RES,CHIP	47K	5%	1/10W
R378	1-216-094-00	RES,CHIP	75K	5%	1/10W
R401	1-216-025-91	RES,CHIP	100	5%	1/10W
R402	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R411	1-216-085-00	METAL CHIP	33K	5%	1/10W
R413	1-216-295-91	SHORT	0		
R414	1-216-295-91	SHORT	0		
R451	1-216-025-91	RES,CHIP	100	5%	1/10W
R452	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R501	1-216-025-91	RES,CHIP	100	5%	1/10W
R503	1-216-025-91	RES,CHIP	100	5%	1/10W
R505	1-216-025-91	RES,CHIP	100	5%	1/10W
R511	1-216-109-00	METAL CHIP	330K	5%	1/10W
R513	1-216-295-91	SHORT	0		
R517	1-216-073-00	METAL CHIP	10K	5%	1/10W
R518	1-216-025-91	RES,CHIP	100	5%	1/10W
R522	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R526	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R527	1-216-025-91	RES,CHIP	100	5%	1/10W
R528	1-216-025-91	RES,CHIP	100	5%	1/10W
R529	1-216-025-91	RES,CHIP	100	5%	1/10W
R530	1-216-025-91	RES,CHIP	100	5%	1/10W
R532	1-216-025-91	RES,CHIP	100	5%	1/10W
R533	1-216-025-91	RES,CHIP	100	5%	1/10W
R536	1-216-025-91	RES,CHIP	100	5%	1/10W
R538	1-216-025-91	RES,CHIP	100	5%	1/10W
R540	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R541	1-216-073-00	METAL CHIP	10K	5%	1/10W
R542	1-216-025-91	RES,CHIP	100	5%	1/10W
R543	1-216-025-91	RES,CHIP	100	5%	1/10W
R545	1-216-025-91	RES,CHIP	100	5%	1/10W
R546	1-216-025-91	RES,CHIP	100	5%	1/10W
R547	1-216-025-91	RES,CHIP	100	5%	1/10W
R548	1-216-025-91	RES,CHIP	100	5%	1/10W
R549	1-216-041-00	METAL CHIP	470	5%	1/10W
R550	1-216-025-91	RES,CHIP	100	5%	1/10W
R551	1-216-025-91	RES,CHIP	100	5%	1/10W
R552	1-216-025-91	RES,CHIP	100	5%	1/10W
R553	1-216-025-91	RES,CHIP	100	5%	1/10W
R554	1-216-025-91	RES,CHIP	100	5%	1/10W
R555	1-216-025-91	RES,CHIP	100	5%	1/10W
R556	1-216-025-91	RES,CHIP	100	5%	1/10W
R557	1-216-025-91	RES,CHIP	100	5%	1/10W
R559	1-216-025-91	RES,CHIP	100	5%	1/10W
R561	1-216-025-91	RES,CHIP	100	5%	1/10W

MAIN **PA**

Ref. No.	Part No.	Description			Remark
R563	1-216-025-91	RES,CHIP	100	5%	1/10W
R565	1-216-025-91	RES,CHIP	100	5%	1/10W
R567	1-216-073-00	METAL CHIP	10K	5%	1/10W
R568	1-216-025-91	RES,CHIP	100	5%	1/10W
R569	1-216-025-91	RES,CHIP	100	5%	1/10W
R570	1-216-089-91	RES,CHIP	47K	5%	1/10W
R572	1-216-025-91	RES,CHIP	100	5%	1/10W
R573	1-216-025-91	RES,CHIP	100	5%	1/10W
R574	1-216-025-91	RES,CHIP	100	5%	1/10W
R575	1-216-025-91	RES,CHIP	100	5%	1/10W
R576	1-216-025-91	RES,CHIP	100	5%	1/10W
R577	1-216-025-91	RES,CHIP	100	5%	1/10W
R578	1-216-025-91	RES,CHIP	100	5%	1/10W
R579	1-216-025-91	RES,CHIP	100	5%	1/10W
R580	1-216-025-91	RES,CHIP	100	5%	1/10W
R581	1-216-025-91	RES,CHIP	100	5%	1/10W
R582	1-216-025-91	RES,CHIP	100	5%	1/10W
R583	1-216-025-91	RES,CHIP	100	5%	1/10W
R584	1-216-025-91	RES,CHIP	100	5%	1/10W
R585	1-216-025-91	RES,CHIP	100	5%	1/10W
R586	1-216-025-91	RES,CHIP	100	5%	1/10W
R587	1-216-025-91	RES,CHIP	100	5%	1/10W
R588	1-216-025-91	RES,CHIP	100	5%	1/10W
R589	1-216-025-91	RES,CHIP	100	5%	1/10W
R590	1-216-025-91	RES,CHIP	100	5%	1/10W
R591	1-216-025-91	RES,CHIP	100	5%	1/10W
R593	1-216-025-91	RES,CHIP	100	5%	1/10W
R594	1-216-053-00	METAL CHIP	1.5K	5%	1/10W (VR70)
R594	1-216-295-91	SHORT	0	(VR50)	
R595	1-216-089-91	RES,CHIP	47K	5%	1/10W
R596	1-216-089-91	RES,CHIP	47K	5%	1/10W
R597	1-216-089-91	RES,CHIP	47K	5%	1/10W (VR50:EA)
R597	1-216-069-00	METAL CHIP	6.8K	5%	1/10W (VR50:MY,SP/VR70)
R600	1-216-025-91	RES,CHIP	100	5%	1/10W
R601	1-216-049-91	RES,CHIP	1K	5%	1/10W
R602	1-216-049-91	RES,CHIP	1K	5%	1/10W
R603	1-216-089-91	RES,CHIP	47K	5%	1/10W
R604	1-216-049-91	RES,CHIP	1K	5%	1/10W
R605	1-216-115-00	METAL CHIP	560K	5%	1/10W
R606	1-216-089-91	RES,CHIP	47K	5%	1/10W
R607	1-216-049-91	RES,CHIP	1K	5%	1/10W
R608	1-216-097-91	RES,CHIP	100K	5%	1/10W
R609	1-216-033-00	METAL CHIP	220	5%	1/10W
R651	1-216-049-91	RES,CHIP	1K	5%	1/10W
R652	1-216-049-91	RES,CHIP	1K	5%	1/10W
R653	1-216-089-91	RES,CHIP	47K	5%	1/10W
R654	1-216-049-91	RES,CHIP	1K	5%	1/10W
R655	1-216-115-00	METAL CHIP	560K	5%	1/10W
R656	1-216-089-91	RES,CHIP	47K	5%	1/10W
R657	1-216-049-91	RES,CHIP	1K	5%	1/10W
R658	1-216-097-91	RES,CHIP	100K	5%	1/10W
R659	1-216-033-00	METAL CHIP	220	5%	1/10W
R701	1-216-049-91	RES,CHIP	1K	5%	1/10W
R702	1-216-097-91	RES,CHIP	100K	5%	1/10W
R703	1-216-049-91	RES,CHIP	1K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R704	1-216-097-91	RES,CHIP	100K	5%	1/10W
R705	1-216-049-91	RES,CHIP	1K	5%	1/10W
R706	1-216-097-91	RES,CHIP	100K	5%	1/10W
R721	1-216-022-00	METAL CHIP	75	5%	1/10W
R722	1-216-015-00	METAL CHIP	39	5%	1/10W
R724	1-216-073-00	METAL CHIP	10K	5%	1/10W
R725	1-216-022-00	METAL CHIP	75	5%	1/10W
R751	1-216-049-91	RES,CHIP	1K	5%	1/10W
R752	1-216-097-91	RES,CHIP	100K	5%	1/10W
R753	1-216-049-91	RES,CHIP	1K	5%	1/10W
R754	1-216-097-91	RES,CHIP	100K	5%	1/10W
R755	1-216-049-91	RES,CHIP	1K	5%	1/10W
R756	1-216-097-91	RES,CHIP	100K	5%	1/10W
R801	1-216-049-91	RES,CHIP	1K	5%	1/10W
R802	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R803	1-216-025-91	RES,CHIP	100	5%	1/10W
R804	1-216-089-91	RES,CHIP	47K	5%	1/10W
R805	1-216-089-91	RES,CHIP	47K	5%	1/10W
R806	1-216-073-00	METAL CHIP	10K	5%	1/10W
R807	1-216-073-00	METAL CHIP	10K	5%	1/10W
R808	1-216-049-91	RES,CHIP	1K	5%	1/10W
R809	1-216-097-91	RES,CHIP	100K	5%	1/10W
R810	1-216-033-00	METAL CHIP	220	5%	1/10W
R811	1-216-097-91	RES,CHIP	100K	5%	1/10W
R901	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R902	1-216-081-00	METAL CHIP	22K	5%	1/10W
R903	1-216-049-91	RES,CHIP	1K	5%	1/10W
R916	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R917	1-216-037-00	METAL CHIP	330	5%	1/10W
R919	1-216-037-00	METAL CHIP	330	5%	1/10W
R920	1-216-037-00	METAL CHIP	330	5%	1/10W
R961	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R962	1-216-079-00	METAL CHIP	18K	5%	1/10W
R963	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
		< VARIABLE RESISTOR >			
RV301	1-238-600-11	RES, ADJ, CARBON 10K			
RV351	1-238-600-11	RES, ADJ, CARBON 10K			
		< VIBRATOR >			
X501	1-567-098-41	VIBRATOR, CRYSTAL (32.768kHz)			
X502	1-781-107-21	VIBRATOR, SERAMIC (16MHz)			

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	A-4417-475-A	PA BOARD, COMPLETE (VR70)			
		**********			
	A-4417-558-A	PA BOARD, COMPLETE (VR50)			
		**********			
		< CAPACITOR >			
C401	1-126-963-11	ELECT	4.7uF		50V
C412	1-161-494-00	CERAMIC	0.022uF		25V
C413	1-161-494-00	CERAMIC	0.022uF		25V
C432	1-104-665-11	ELECT	100uF	20%	10V
C433	1-126-962-11	ELECT	3.3uF	20%	50V
C801	1-128-582-11	ELECT	10uF	20%	100V

Ref. No.	Part No.	Description			Remark
C802	1-162-292-31	CERAMIC	680PF	10%	50V
C803	1-162-286-31	CERAMIC	220PF	10%	50V
C804	1-126-967-11	ELECT	47uF	20%	50V
C807	1-128-560-11	ELECT	22uF	20%	100V
C808	1-130-777-00	FILM	0.1uF	10%	100V
C809	1-130-777-00	FILM	0.1uF	10%	100V
C810	1-128-562-11	ELECT	47uF	20%	100V
C811	1-130-493-00	MYLAR	0.068uF	5%	50V
C812	1-130-493-00	MYLAR	0.068uF	5%	50V
C813	1-161-494-00	CERAMIC	0.022uF		25V
C814	1-162-294-31	CERAMIC	0.001uF	10%	50V
C815	1-128-562-11	ELECT	47uF	20%	100V
C830	1-107-714-11	ELECT	10uF	20%	50V
C831	1-126-964-11	ELECT	10uF	20%	50V
C832	1-126-967-11	ELECT	47uF	20%	50V
C841	1-127-811-11	ELECT	3300uF	20%	50V
C842	1-127-814-11	ELECT	3300uF	20%	80V (VR50)
C842	1-127-815-11	ELECT	3300uF	20%	100V (VR70)
C844	1-130-777-00	FILM	0.1uF	10%	100V
C845	1-126-943-11	ELECT	2200uF	20%	25V
C847	1-164-159-21	CERAMIC	0.1uF		50V
C848	1-164-159-21	CERAMIC	0.1uF		50V
C849	1-164-159-21	CERAMIC	0.1uF		50V
C850	1-107-721-11	ELECT	4.7uF	20%	100V
C851	1-128-582-11	ELECT	10uF	20%	100V
C852	1-162-292-31	CERAMIC	680PF	10%	50V
C853	1-162-286-31	CERAMIC	220PF	10%	50V
C854	1-126-967-11	ELECT	47uF	20%	50V
C857	1-128-560-11	ELECT	22uF	20%	100V
C858	1-164-159-21	CERAMIC	0.1uF		50V
C859	1-164-159-21	CERAMIC	0.1uF		50V
C861	1-130-493-00	MYLAR	0.068uF	5%	50V
C862	1-130-493-00	MYLAR	0.068uF	5%	50V
C891	1-127-811-11	ELECT	3300uF	20%	50V
C892	1-127-814-11	ELECT	3300uF	20%	80V (VR50)
C892	1-127-815-11	ELECT	3300uF	20%	100V (VR70)
C894	1-130-777-00	FILM	0.1uF	10%	100V
C895	1-107-721-11	ELECT	4.7uF	20%	100V
C904	1-126-964-11	ELECT	10uF	20%	50V
C905	1-126-948-11	ELECT	100uF	20%	35V
		< CONNECTOR >			
CN803	1-778-981-11	CONNECTOR, BOARD TO BOARD 13P			
CN804	1-766-921-11	CONNECTOR, BOARD TO BOARD 10P			
		< DIODE >			
D401	8-719-991-33	DIODE 1SS133T-77			
D402	8-719-991-33	DIODE 1SS133T-77			
D405	8-719-991-33	DIODE 1SS133T-77			
D406	8-719-991-33	DIODE 1SS133T-77			
D801	8-719-991-33	DIODE 1SS133T-77			
D802	8-719-119-04	DIODE RD18F-T7B2			
D803	8-719-991-33	DIODE 1SS133T-77			

Ref. No.	Part No.	Description			Remark
D804	8-719-991-33	DIODE 1SS133T-77			
D805	8-719-991-33	DIODE 1SS133T-77			
D831	8-719-510-68	DIODE D5SBA20F01			
D833	8-719-200-82	DIODE 11ES2			
D834	8-719-200-82	DIODE 11ES2			
D835	8-719-200-82	DIODE 11ES2			
D836	8-719-200-82	DIODE 11ES2			
D841	8-719-975-85	DIODE ERB83-004			
D842	8-719-975-85	DIODE ERB83-004			
D843	8-719-975-85	DIODE ERB83-004			
D844	8-719-975-85	DIODE ERB83-004			
D851	8-719-991-33	DIODE 1SS133T-77			
D852	8-719-119-04	DIODE RD18F-T7B2			
D911	8-719-934-25	DIODE HZS33-1L			
D912	8-719-109-89	DIODE RD5.6ESB2			
		< IC >			
IC801	8-749-015-37	IC STK411-240E			
		< TRANSISTOR >			
Q401	8-729-029-21	TRANSISTOR DTA114ESA-TP			
Q402	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA			
Q431	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA			
Q432	8-729-119-76	TRANSISTOR 2SA1175-HFE			
Q433	8-729-620-05	TRANSISTOR 2SC2603-EF			
Q434	8-729-620-05	TRANSISTOR 2SC2603-EF			
Q437	8-729-620-05	TRANSISTOR 2SC2603-EF			
Q439	8-729-620-05	TRANSISTOR 2SC2603-EF			
Q801	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA			
Q803	8-729-140-82	TRANSISTOR 2SA988-PAFAEA			
Q804	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA			
Q805	8-729-231-55	TRANSISTOR 2SC2878-AB			
Q831	8-729-029-86	TRANSISTOR DTC124ESA			
Q832	8-729-620-05	TRANSISTOR 2SC2603-EF			
Q833	8-729-029-40	TRANSISTOR DTA124ESA			
Q834	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA			
Q851	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA			
Q855	8-729-231-55	TRANSISTOR 2SC2878-AB			
Q903	8-729-048-52	TRANSISTOR 2SA1932			
Q904	8-729-661-93	TRANSISTOR 2SA1115			
		< RESISTOR >			
⚠R401	1-215-868-00	METAL OXIDE	680	5%	1W F (VR70)
⚠R401	1-216-431-11	METAL OXIDE	560	5%	1W F (VR50)
R406	1-249-437-11	CARBON	47K	5%	1/4W
R407	1-249-437-11	CARBON	47K	5%	1/4W
R429	1-249-437-11	CARBON	47K	5%	1/4W
R431	1-249-438-11	CARBON	56K	5%	1/4W
R432	1-249-437-11	CARBON	47K	5%	1/4W
R434	1-247-863-91	CARBON	22K	5%	1/4W
R435	1-249-425-11	CARBON	4.7K	5%	1/4W F
R437	1-249-429-11	CARBON	10K	5%	1/4W
R439	1-249-425-11	CARBON	4.7K	5%	1/4W F
R440	1-247-863-91	CARBON	22K	5%	1/4W
R441	1-249-435-11	CARBON	33K	5%	1/4W

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

PA PANEL FL

Ref. No.	Part No.	Description			Remark
R446	1-249-429-11	CARBON	10K	5%	1/4W
R447	1-249-437-11	CARBON	47K	5%	1/4W
R801	1-249-417-11	CARBON	1K	5%	1/4W F
R802	1-249-437-11	CARBON	47K	5%	1/4W
R803	1-249-412-11	CARBON	390	5%	1/4W F
R804	1-249-423-11	CARBON	3.3K	5%	1/4W F
⚠R805	1-216-436-00	METAL OXIDE	3.9K	5%	1W F
⚠R806	1-216-436-00	METAL OXIDE	3.9K	5%	1W F
⚠R807	1-212-881-11	FUSIBLE	100	5%	1/4W F
⚠R808	1-220-893-11	METAL	0.22	10%	5W
R809	1-260-076-11	CARBON	10	5%	1/2W
R810	1-249-437-11	CARBON	47K	5%	1/4W
R811	1-249-417-11	CARBON	1K	5%	1/4W F
R812	1-249-431-11	CARBON	15K	5%	1/4W
R813	1-249-441-11	CARBON	100K	5%	1/4W
R814	1-249-421-11	CARBON	2.2K	5%	1/4W F
R815	1-247-863-91	CARBON	22K	5%	1/4W
R816	1-249-429-11	CARBON	10K	5%	1/4W
R817	1-249-421-11	CARBON	2.2K	5%	1/4W F
R818	1-249-417-11	CARBON	1K	5%	1/4W F
R819	1-249-439-11	CARBON	68K	5%	1/4W
⚠R820	1-202-972-61	FUSIBLE	1	5%	1/4W F
R821	1-249-435-11	CARBON	33K	5%	1/4W
R822	1-247-863-91	CARBON	22K	5%	1/4W
R823	1-247-863-91	CARBON	22K	5%	1/4W
R824	1-249-416-11	CARBON	820	5%	1/4W F (VR70)
R824	1-249-418-11	CARBON	1.2K	1/4W	(VR50)
⚠R825	1-215-891-11	METAL OXIDE	680	5%	2W F
R827	1-249-441-11	CARBON	100K	5%	1/4W
R828	1-247-903-00	CARBON	1M	5%	1/4W
R831	1-249-441-11	CARBON	100K	5%	1/4W
R832	1-249-441-11	CARBON	100K	5%	1/4W
R833	1-249-419-11	CARBON	1.5K	5%	1/4W (VR70)
R833	1-249-420-11	CARBON	1.8K	5%	1/4W (VR50)
R834	1-249-429-11	CARBON	10K	5%	1/4W
R835	1-249-437-11	CARBON	47K	5%	1/4W
R836	1-249-417-11	CARBON	1K	5%	1/4W F
R837	1-249-435-11	CARBON	33K	5%	1/4W
R838	1-249-435-11	CARBON	33K	5%	1/4W
⚠R839	1-215-877-11	METAL OXIDE	22K	5%	1W F
R840	1-249-402-11	CARBON	56	5%	1/4W F
⚠R842	1-202-972-61	FUSIBLE	1	5%	1/4W F
R851	1-249-417-11	CARBON	1K	5%	1/4W F
R852	1-249-437-11	CARBON	47K	5%	1/4W
R853	1-249-412-11	CARBON	390	5%	1/4W F
⚠R855	1-215-891-11	METAL OXIDE	680	5%	2W F
⚠R857	1-212-881-11	FUSIBLE	100	5%	1/4W F
R858	1-220-893-11	METAL	0.22	10%	5W
R859	1-260-076-11	CARBON	10	5%	1/2W
R860	1-249-437-11	CARBON	47K	5%	1/4W
R861	1-249-417-11	CARBON	1K	5%	1/4W F
R862	1-249-431-11	CARBON	15K	5%	1/4W
R863	1-249-441-11	CARBON	100K	5%	1/4W
R868	1-249-417-11	CARBON	1K	5%	1/4W F

Ref. No.	Part No.	Description			Remark
R880	1-249-402-11	CARBON	56	5%	1/4W F
⚠R889	1-215-877-11	METAL OXIDE	22K	5%	1W F
R903	1-249-429-11	CARBON	10K	5%	1/4W
R904	1-249-417-11	CARBON	1K	5%	1/4W F
R905	1-249-429-11	CARBON	10K	5%	1/4W
R906	1-247-807-31	CARBON	100	5%	1/4W
R907	1-247-807-31	CARBON	100	5%	1/4W
R909	1-247-791-91	CARBON	22	5%	1/4W
		< RELAY >			
RY401	1-515-920-11	RELAY (24V)			
		< TERMINAL >			
TM401	1-537-842-11	TERMINAL BOARD (FRONT SPEAKER)			
**********					
*	A-4426-366-A	PANEL FL BOARD, COMPLETE (VR50)			
		**********			
*	A-4426-393-A	PANEL FL BOARD, COMPLETE (VR70)			
		**********			
*	4-214-749-01	HOLDER (925), FL TUBE (VR70)			
*	4-214-750-01	HOLDER (915), FL TUBE (VR50)			
*	4-949-935-81	CUSHION (FL)			
		< CAPACITOR >			
C601	1-104-664-11	ELECT	47uF	20%	10V
C602	1-162-306-11	CERAMIC	0.01uF	20%	16V
C604	1-126-960-11	ELECT	1uF	20%	50V
C606	1-126-960-11	ELECT	1uF	20%	50V
C608	1-104-665-11	ELECT	100uF	20%	10V
C609	1-162-294-31	CERAMIC	0.001uF	10%	50V
C611	1-162-302-11	CERAMIC	0.0022uF	30%	16V
C612	1-162-302-11	CERAMIC	0.0022uF	30%	16V
C613	1-104-664-11	ELECT	47uF	20%	16V
C616	1-162-294-31	CERAMIC	0.001uF	10%	50V
C617	1-162-306-11	CERAMIC	0.01uF	20%	16V
C621	1-126-964-11	ELECT	10uF	20%	50V
C622	1-162-303-11	CERAMIC	0.0033uF	30%	16V
C623	1-126-964-11	ELECT	10uF	20%	50V
C624	1-104-664-11	ELECT	47uF	20%	16V
C625	1-126-963-11	ELECT	4.7uF	20%	50V
C626	1-126-964-11	ELECT	10uF	20%	50V
C641	1-162-286-21	CERAMIC	220PF	10%	50V
C642	1-162-286-21	CERAMIC	220PF	10%	50V
C643	1-162-286-21	CERAMIC	220PF	10%	50V
C644	1-162-286-21	CERAMIC	220PF	10%	50V
C645	1-162-286-21	CERAMIC	220PF	10%	50V
C646	1-162-286-21	CERAMIC	220PF	10%	50V
C647	1-162-286-21	CERAMIC	220PF	10%	50V
C648	1-162-286-21	CERAMIC	220PF	10%	50V
C649	1-162-286-21	CERAMIC	220PF	10%	50V
C650	1-162-286-21	CERAMIC	220PF	10%	50V
C651	1-162-286-21	CERAMIC	220PF	10%	50V
C652	1-162-286-21	CERAMIC	220PF	10%	50V
C653	1-162-286-21	CERAMIC	220PF	10%	50V

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description			Remark
C654	1-162-286-21	CERAMIC	220PF	10%	50V
C655	1-162-286-21	CERAMIC	220PF	10%	50V
C656	1-162-286-21	CERAMIC	220PF	10%	50V
		< CONNECTOR >			
CN601	1-784-776-11	CONNECTOR, FFC 15P			
CN602	1-784-737-11	CONNECTOR, FFC 15P			
		< DIODE >			
D601	8-719-071-44	DIODE SELS5223C-TP15 (STAND-BY)			
D602	8-719-058-04	DIODE SEL5223S-TP15 (DAILY)			
D603	8-719-058-04	DIODE SEL5223S-TP15 (REC)			
D604	8-719-058-04	DIODE SEL5223S-TP15 (SYNC EQ)			
D605	8-719-058-04	DIODE SEL5223S-TP15 (SYNC BASS)			
D606	8-719-058-03	DIODE SEL5423E-TP15 (TUNER/BAND)			
D607	8-719-058-04	DIODE SEL5223S-TP15 (ENT/NEX)			
D608	8-719-050-84	DIODE RB441Q-40T-77			
		< FLUORESCENT INDICATOR >			
FL601	1-517-839-11	INDICATOR TUBE, FLUORESCENT (VR70)			
FL601	1-517-840-11	INDICATOR TUBE, FLUORESCENT (VR50)			
		< IC >			
IC601	8-759-589-13	IC TMP88CS76F-6004			
IC602	8-759-459-86	IC NJL64H400A			
IC603	8-759-083-77	IC BA3830F			
IC604	8-759-567-59	IC NJU3716L			
		< COIL >			
L601	1-410-517-11	INDUCTOR	47uH		
L602	1-410-517-11	INDUCTOR	47uH		
L603	1-410-517-11	INDUCTOR	47uH		
L604	1-410-509-11	INDUCTOR	10uH		
		< LINE FILTER >			
LF601	1-424-228-11	FILTER, NOISE			
		< TRANSISTOR >			
Q601	8-729-620-05	TRANSISTOR 2SC2603-EF			
Q602	8-729-118-00	TRANSISTOR 2SB1116-L			
Q603	8-729-118-00	TRANSISTOR 2SB1116-L			
Q605	8-729-029-23	TRANSISTOR DTA114TSA-TP			
Q606	8-729-029-23	TRANSISTOR DTA114TSA-TP			
Q607	8-729-029-23	TRANSISTOR DTA114TSA-TP			
Q608	8-729-047-58	TRANSISTOR DTC114TLTL2			
Q609	8-729-047-58	TRANSISTOR DTC114TLTL2			
Q610	8-729-047-58	TRANSISTOR DTC114TLTL2			
		< RESISTOR >			
R601	1-247-893-11	CARBON	390K	5%	1/4W
R602	1-247-893-11	CARBON	390K	5%	1/4W
R603	1-249-441-11	CARBON	100K	5%	1/4W
R604	1-249-441-11	CARBON	100K	5%	1/4W
R605	1-247-807-31	CARBON	100	5%	1/4W
R608	1-249-435-11	CARBON	33K	5%	1/4W
R609	1-247-895-91	CARBON	470K	5%	1/4W
R610	1-249-401-11	CARBON	47	5%	1/4W F

Ref. No.	Part No.	Description			Remark
R611	1-249-429-11	CARBON	10K	5%	1/4W
R612	1-247-807-31	CARBON	100	5%	1/4W
R613	1-247-807-31	CARBON	100	5%	1/4W
R614	1-247-807-31	CARBON	100	5%	1/4W
R615	1-249-429-11	CARBON	10K	5%	1/4W
R616	1-249-429-11	CARBON	10K	5%	1/4W
R617	1-249-429-11	CARBON	10K	5%	1/4W
R618	1-249-429-11	CARBON	10K	5%	1/4W
R619	1-249-429-11	CARBON	10K	5%	1/4W
R620	1-249-429-11	CARBON	10K	5%	1/4W
R621	1-249-429-11	CARBON	10K	5%	1/4W
R622	1-249-429-11	CARBON	10K	5%	1/4W
R623	1-247-903-00	CARBON	1M	5%	1/4W
R624	1-247-807-31	CARBON	100	5%	1/4W
R625	1-247-807-31	CARBON	100	5%	1/4W
R626	1-249-429-11	CARBON	10K	5%	1/4W
R627	1-247-807-31	CARBON	100	5%	1/4W
R628	1-249-429-11	CARBON	10K	5%	1/4W
R629	1-247-807-31	CARBON	100	5%	1/4W
R630	1-249-429-11	CARBON	10K	5%	1/4W
R631	1-249-410-11	CARBON	270	5%	1/4W F
R632	1-249-411-11	CARBON	330	5%	1/4W
R633	1-249-413-11	CARBON	470	5%	1/4W F
R634	1-249-414-11	CARBON	560	5%	1/4W F
R635	1-249-415-11	CARBON	680	5%	1/4W F
R636	1-249-417-11	CARBON	1K	5%	1/4W F
R637	1-249-418-11	CARBON	1.2K	5%	1/4W F
R638	1-249-420-11	CARBON	1.8K	5%	1/4W F
R639	1-249-422-11	CARBON	2.7K	5%	1/4W F
R640	1-247-843-11	CARBON	3.3K	5%	1/4W
R641	1-249-425-11	CARBON	4.7K	5%	1/4W F
R642	1-249-427-11	CARBON	6.8K	5%	1/4W F
R643	1-249-429-11	CARBON	10K	5%	1/4W
R644	1-249-431-11	CARBON	15K	5%	1/4W
R645	1-249-434-11	CARBON	27K	5%	1/4W
R647	1-249-410-11	CARBON	270	5%	1/4W F
R648	1-249-411-11	CARBON	330	5%	1/4W
R649	1-249-413-11	CARBON	470	5%	1/4W F
R650	1-249-414-11	CARBON	560	5%	1/4W F
R651	1-249-415-11	CARBON	680	5%	1/4W F
R652	1-249-437-11	CARBON	47K	5%	1/4W
R653	1-249-417-11	CARBON	1K	5%	1/4W F
R654	1-249-437-11	CARBON	47K	5%	1/4W
R655	1-249-417-11	CARBON	1K	5%	1/4W F
R656	1-249-438-11	CARBON	56K	5%	1/4W
R659	1-249-411-11	CARBON	330	5%	1/4W
R660	1-249-411-11	CARBON	330	5%	1/4W
R661	1-249-412-11	CARBON	390	5%	1/4W F
R662	1-249-407-11	CARBON	150	5%	1/4W F
R663	1-247-804-11	CARBON	75	5%	1/4W
R664	1-249-407-11	CARBON	150	5%	1/4W F
R665	1-249-441-11	CARBON	100K	5%	1/4W
R666	1-249-441-11	CARBON	100K	5%	1/4W
R667	1-249-441-11	CARBON	100K	5%	1/4W
R668	1-249-429-11	CARBON	10K	5%	1/4W
R669	1-249-393-11	CARBON	10	5%	1/4W F
R670	1-249-393-11	CARBON	10	5%	1/4W F

PANEL FL PANEL VR

Ref. No.	Part No.	Description			Remark
R671	1-249-393-11	CARBON	10	5%	1/4W F
R672	1-249-393-11	CARBON	10	5%	1/4W F
R673	1-249-393-11	CARBON	10	5%	1/4W F
R674	1-249-393-11	CARBON	10	5%	1/4W F
R675	1-249-393-11	CARBON	10	5%	1/4W F
R676	1-249-393-11	CARBON	10	5%	1/4W F
R677	1-249-393-11	CARBON	10	5%	1/4W F
R678	1-249-393-11	CARBON	10	5%	1/4W F
R679	1-249-393-11	CARBON	10	5%	1/4W F
R680	1-249-420-11	CARBON	1.8K	5%	1/4W F
R681	1-249-440-11	CARBON	82K	5%	1/4W
R682	1-249-420-11	CARBON	1.8K	5%	1/4W F
R683	1-249-437-11	CARBON	47K	5%	1/4W
R684	1-249-440-11	CARBON	82K	5%	1/4W
R685	1-249-429-11	CARBON	10K	5%	1/4W
		< SWITCH >			
S601	1-554-303-21	SWITCH, TACTILE (I/⏻)			
S602	1-554-303-21	SWITCH, TACTILE (POWER SAVE/DEMO (STANDBY))			
S603	1-554-303-21	SWITCH, TACTILE (DISPLAY)			
S604	1-554-303-21	SWITCH, TACTILE (SPECTRUM ANALYZER)			
S606	1-554-303-21	SWITCH, TACTILE (TUNING MODE)			
S607	1-554-303-21	SWITCH, TACTILE (STEREO/MONO)			
S608	1-554-303-21	SWITCH, TACTILE (ENTER/NEXT)			
S609	1-554-303-21	SWITCH, TACTILE (TUNING/BAND)			
S610	1-554-303-21	SWITCH, TACTILE (TUNING +)			
S611	1-554-303-21	SWITCH, TACTILE (TUNING -)			
S612	1-554-303-21	SWITCH, TACTILE (FUNCTION)			
S613	1-554-303-21	SWITCH, TACTILE (TUNER MEMORY)			
S614	1-554-303-21	SWITCH, TACTILE (SYNC EQ)			
S615	1-554-303-21	SWITCH, TACTILE (SYNC BASS)			
S617	1-554-303-21	SWITCH, TACTILE (DAILY)			
S618	1-554-303-21	SWITCH, TACTILE (REC)			
S619	1-554-303-21	SWITCH, TACTILE (SLEEP)			
S620	1-554-303-21	SWITCH, TACTILE (🕘/CLOCK SET)			
		< VIBRATOR >			
X601	1-781-312-11	VIBRATOR, CERAMIC (12.5MHz)			

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	A-4417-467-A	PANEL VR BOARD, COMPLETE (VR70)			
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	A-4417-557-A	PANEL VR BOARD, COMPLETE (VR50)			
		**********			
		< CAPACITOR >			
C610	1-162-306-11	CERAMIC	0.01uF	20%	16V
C611	1-162-306-11	CERAMIC	0.01uF	20%	16V
C612	1-164-159-21	CERAMIC	0.1uF		50V
		< CONNECTOR >			
CN701	1-784-776-11	CONNECTOR, FFC 15P			
		< DIODE >			
D611	8-719-058-04	DIODE SEL5223S-TP15 (GROOVE)			

Ref. No.	Part No.	Description	Remark
D612	8-719-058-04	DIODE SEL5223S-TP15 (SUPER WOOFER)	
D615	8-719-057-97	DIODE SEL5923A-TP15 (KEY CONTROL)	
D616	8-719-058-04	DIODE SEL5223S-TP15 (ENTER)	
D618	8-719-058-04	DIODE SEL5223S-TP15 (EFFECT)	
D619	8-719-075-54	DIODE SLR-325YCT31-NP (MENU 2)	
D620	8-719-075-54	DIODE SLR-325YCT31-NP (MENU 1)	
D621	8-719-075-54	DIODE SLR-325YCT31-NP (P.FILE)	
D623	8-719-075-54	DIODE SLR-325YCT31-NP (FILE 5)	
D624	8-719-075-54	DIODE SLR-325YCT31-NP (FILE 4)	
D625	8-719-075-54	DIODE SLR-325YCT31-NP (FILE 3)	
D626	8-719-075-54	DIODE SLR-325YCT31-NP (FILE 2)	
D627	8-719-075-54	DIODE SLR-325YCT31-NP (FILE 1)	

< RESISTOR >

R760	1-249-438-11	CARBON	56K	5%	1/4W
R761	1-249-410-11	CARBON	270	5%	1/4W F
R762	1-249-411-11	CARBON	330	5%	1/4W
R763	1-249-413-11	CARBON	470	5%	1/4W F
R764	1-249-414-11	CARBON	560	5%	1/4W F
R765	1-249-415-11	CARBON	680	5%	1/4W F
R766	1-249-417-11	CARBON	1K	5%	1/4W F
R767	1-249-418-11	CARBON	1.2K	5%	1/4W F
R768	1-249-420-11	CARBON	1.8K	5%	1/4W F
R769	1-249-422-11	CARBON	2.7K	5%	1/4W F
R770	1-247-843-11	CARBON	3.3K	5%	1/4W
R771	1-249-425-11	CARBON	4.7K	5%	1/4W F
R772	1-249-427-11	CARBON	6.8K	5%	1/4W F
R773	1-249-429-11	CARBON	10K	5%	1/4W
R774	1-249-431-11	CARBON	15K	5%	1/4W
R775	1-249-434-11	CARBON	27K	5%	1/4W
R776	1-249-438-11	CARBON	56K	5%	1/4W
R777	1-247-818-91	CARBON	300	5%	1/4W
R778	1-249-407-11	CARBON	150	5%	1/4W F
R781	1-249-403-11	CARBON	68	5%	1/4W F
R782	1-249-407-11	CARBON	150	5%	1/4W F
R784	1-249-407-11	CARBON	150	5%	1/4W F
R785	1-249-407-11	CARBON	150	5%	1/4W F
R786	1-249-407-11	CARBON	150	5%	1/4W F
R787	1-249-407-11	CARBON	150	5%	1/4W F
R789	1-249-407-11	CARBON	150	5%	1/4W F
R790	1-249-407-11	CARBON	150	5%	1/4W F
R791	1-249-407-11	CARBON	150	5%	1/4W F
R792	1-249-407-11	CARBON	150	5%	1/4W F
R793	1-249-407-11	CARBON	150	5%	1/4W F
R794	1-249-417-11	CARBON	1K	5%	1/4W F
R795	1-249-417-11	CARBON	1K	5%	1/4W F

< SWITCH >

S625	1-771-215-11	SWITCH, TACTILE (GEQ ⇦ ⇧ ⇩ ⇨)
S626	1-554-303-21	SWITCH, TACTILE (GROOVE)
S627	1-554-303-21	SWITCH, TACTILE (SUPER WOOFER)
S628	1-554-303-21	SWITCH, TACTILE (MODE)
S631	1-554-303-21	SWITCH, TACTILE (#)
S632	1-554-303-21	SWITCH, TACTILE (KARAOKE PON/MPX)
S633	1-554-303-21	SWITCH, TACTILE (ENTER)
S634	1-554-303-21	SWITCH, TACTILE (GEQ CONTROL)
S635	1-554-303-21	SWITCH, TACTILE (DSP)

Ref. No.	Part No.	Description			Remark
S636	1-554-303-21	SWITCH, TACTILE (EFFECT)			
S637	1-554-303-21	SWITCH, TACTILE (P.FILE MEMORY)			
S660	1-554-303-21	SWITCH, TACTILE (♭)			
S701	1-473-392-11	ENCODER, ROTARY (VOLUME)			

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*	1-659-058-13	TABLE SENSOR BOARD			
		**********			
		< IC >			
IC202	8-749-924-18	IC PHOTO INTERRUPTER RPI-1391			
		< RESISTOR >			
R207	1-249-416-11	CARBON	820	5%	1/4W F

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*	1-672-193-11	TC-A BOARD			
		**********			
		< DIODE >			
D631	8-719-058-03	DIODE SEL5423E-TP15 (▷)(DECK A)			
D632	8-719-058-03	DIODE SEL5423E-TP15 (◁)(DECK A)			
		< RESISTOR >			
R701	1-249-417-11	CARBON	1K	5%	1/4W F
R702	1-249-418-11	CARBON	1.2K	5%	1/4W F
R703	1-249-420-11	CARBON	1.8K	5%	1/4W F
R704	1-249-422-11	CARBON	2.7K	5%	1/4W F
R705	1-247-843-11	CARBON	3.3K	5%	1/4W
R706	1-249-425-11	CARBON	4.7K	5%	1/4W F
R707	1-247-804-11	CARBON	75	5%	1/4W
R708	1-247-804-11	CARBON	75	5%	1/4W
		< SWITCH >			
S641	1-554-303-21	SWITCH, TACTILE (▷)(DECK A)			
S642	1-554-303-21	SWITCH, TACTILE (◁)(DECK A)			
S643	1-554-303-21	SWITCH, TACTILE (□)(DECK A)			
S644	1-554-303-21	SWITCH, TACTILE (◁◁)(DECK A)			
S645	1-554-303-21	SWITCH, TACTILE (▷▷)(DECK A)			
S646	1-554-303-21	SWITCH, TACTILE (DOLBY NR)			
S647	1-554-303-21	SWITCH, TACTILE (DIRECTION)			

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*	1-672-194-11	TC-B BOARD			
		**********			
		< DIODE >			
D635	8-719-058-03	DIODE SEL5423E-TP15 (◁)(DECK B)			
D636	8-719-058-03	DIODE SEL5423E-TP15 (▷)(DECK B)			
D637	8-719-057-97	DIODE SEL5923A-TP15 (❚❚)(DECK B)			
D638	8-719-058-04	DIODE SEL5223S-TP15 (● REC)(DECK B)			
		< RESISTOR >			
R711	1-249-410-11	CARBON	270	5%	1/4W F
R712	1-249-411-11	CARBON	330	5%	1/4W
R713	1-249-413-11	CARBON	470	5%	1/4W F
R714	1-249-414-11	CARBON	560	5%	1/4W F
R715	1-249-415-11	CARBON	680	5%	1/4W F
R716	1-249-417-11	CARBON	1K	5%	1/4W F
R717	1-249-418-11	CARBON	1.2K	5%	1/4W F
R718	1-249-420-11	CARBON	1.8K	5%	1/4W F
R719	1-249-422-11	CARBON	2.7K	5%	1/4W F
R720	1-247-804-11	CARBON	75	5%	1/4W
R721	1-247-804-11	CARBON	75	5%	1/4W
R722	1-247-807-31	CARBON	100	5%	1/4W
R723	1-249-407-11	CARBON	150	5%	1/4W F
		< SWITCH >			
S651	1-554-303-21	SWITCH, TACTILE (▷)(DECK B)			
S652	1-554-303-21	SWITCH, TACTILE (◁)(DECK B)			
S653	1-554-303-21	SWITCH, TACTILE (□)(DECK B)			
S654	1-554-303-21	SWITCH, TACTILE (◁◁)(DECK B)			
S655	1-554-303-21	SWITCH, TACTILE (▷▷)(DECK B)			
S656	1-554-303-21	SWITCH, TACTILE (❚❚)(DECK B)			
S657	1-554-303-21	SWITCH, TACTILE (● REC)(DECK B)			
S658	1-554-303-21	SWITCH, TACTILE (HI-SPEED DUB)			
S659	1-554-303-21	SWITCH, TACTILE (CD SYNCHRO)			

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	1-673-110-11	TRANS BOARD			
		**********			
		< CAPACITOR >			
C843	1-130-777-00	FILM	0.1uF	10%	100V
C893	1-130-777-00	FILM	0.1uF	10%	100V
C961	1-162-306-11	CERAMIC	0.01uF	20%	16V
C963	1-162-306-11	CERAMIC	0.01uF	20%	16V
		< CONNECTOR >			
* CN901	1-580-230-11	PIN, CONNECTOR (PC BOARD) 2P			
* CN952	1-564-528-11	PLUG, CONNECTOR 13P			
		< DIODE >			
D832	8-719-510-68	DIODE D5SBA20F01			
		< FUSE >			
⚠F951	1-532-505-31	FUSE (T5AL/250V)(VR70)			
⚠F951	1-532-506-31	FUSE (T6.3AL/250V)(VR50)			
⚠F961	1-532-506-31	FUSE (T6.3AL/250V)(VR70)			
⚠F961	1-533-949-31	FUSE (T8AL/250V)(VR50)			
⚠F962	1-532-506-31	FUSE (T6.3AL/250V)(VR70)			
⚠F962	1-533-949-31	FUSE (T8AL/250V)(VR50)			
⚠F963	1-532-506-31	FUSE (T6.3AL/250V)			
⚠F964	1-532-506-31	FUSE (T6.3AL/250V)			
		< FUSE HOLDER >			
FH951	1-533-233-21	HOLDER, FUSE			
FH952	1-533-233-21	HOLDER, FUSE			
FH961	1-533-233-21	HOLDER, FUSE			
FH962	1-533-233-21	HOLDER, FUSE			
FH963	1-533-233-21	HOLDER, FUSE			

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

TRANS VIDEO

Ref. No.	Part No.	Description				Remark
FH964	1-533-233-21	HOLDER, FUSE				
FH965	1-533-233-21	HOLDER, FUSE				
FH966	1-533-233-21	HOLDER, FUSE				
FH967	1-533-233-21	HOLDER, FUSE				
FH968	1-533-233-21	HOLDER, FUSE				
		< RESISTOR >				
⚠R951	1-219-122-91	FUSIBLE	0.33	5%	1/4W	F
⚠R952	1-219-122-91	FUSIBLE	0.33	5%	1/4W	F
⚠R953	1-219-119-81	FUSIBLE	0.1	5%	1/4W	F
		< TRANSFORMER >				
⚠T951	1-433-604-11	TRANSFORMER, POWER (VR50)				
⚠T951	1-433-606-11	TRANSFORMER, POWER (VR70)				
		< POWER SWITCH >				
⚠VS901	1-771-291-11	SWITCH, POWER (VOLTAGE SELECTOR)				
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	A-4724-725-A	VIDEO BOARD, COMPLETE				
		**********				
		< CAPACITOR >				
C101	1-124-778-00	ELECT CHIP	22uF	20%	6.3V	
C102	1-163-143-00	CERAMIC CHIP	0.0012uF	5%	50V	
C103	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V	
C104	1-126-206-11	ELECT CHIP	100uF	20%	6.3V	
C201	1-124-778-00	ELECT CHIP	22uF	20%	6.3V	
C202	1-163-143-00	CERAMIC CHIP	0.0012uF	5%	50V	
C203	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V	
C301	1-163-127-00	CERAMIC CHIP	270PF	5%	50V	
C302	1-163-127-00	CERAMIC CHIP	270PF	5%	50V	
C303	1-163-235-11	CERAMIC CHIP	22PF	5%	50V	
C304	1-163-235-11	CERAMIC CHIP	22PF	5%	50V	
C305	1-163-263-11	CERAMIC CHIP	330PF	5%	50V	
C306	1-163-263-11	CERAMIC CHIP	330PF	5%	50V	
C310	1-163-137-00	CERAMIC CHIP	680PF	5%	50V	
C311	1-216-295-91	SHORT	0			
C313	1-165-319-11	CERAMIC CHIP	0.1uF		50V	
C314	1-165-319-11	CERAMIC CHIP	0.1uF		50V	
C318	1-124-778-00	ELECT CHIP	22uF	20%	6.3V	
C319	1-165-319-11	CERAMIC CHIP	0.1uF		50V	
C401	1-165-319-11	CERAMIC CHIP	0.1uF		50V	
C402	1-124-778-00	ELECT CHIP	22uF	20%	6.3V	
C403	1-124-778-00	ELECT CHIP	22uF	20%	6.3V	
C404	1-126-206-11	ELECT CHIP	100uF	20%	6.3V	
C405	1-110-530-11	ELECT CHIP	1000uF	20%	6.3V	
C406	1-110-530-11	ELECT CHIP	1000uF	20%	6.3V	
C409	1-124-778-00	ELECT CHIP	22uF	20%	6.3V	
C410	1-165-319-11	CERAMIC CHIP	0.1uF		50V	
C411	1-165-319-11	CERAMIC CHIP	0.1uF		50V	
C412	1-165-319-11	CERAMIC CHIP	0.1uF		50V	
C413	1-124-778-00	ELECT CHIP	22uF	20%	6.3V	
C452	1-165-319-11	CERAMIC CHIP	0.1uF		50V	
C501	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C502	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C503	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	

Ref. No.	Part No.	Description			Remark
C504	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C505	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C506	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C507	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C509	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C510	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C531	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C532	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C535	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C536	1-126-193-11	ELECT	1uF	20%	50V
C537	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C539	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C540	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C541	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C542	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C543	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C544	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C545	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C546	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C547	1-126-193-11	ELECT	1uF	20%	50V
C548	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C549	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C550	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C551	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C552	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C553	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C555	1-124-779-00	ELECT CHIP	10uF	20%	16V
C556	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C559	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C560	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C561	1-163-233-11	CERAMIC CHIP	18PF	5%	50V
C562	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C563	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C564	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C565	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C566	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C568	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C569	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C570	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C571	1-128-065-11	ELECT CHIP	68MF	20%	10V
C573	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C574	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C576	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C577	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
		< CONNECTOR >			
* CN301	1-564-506-11	PLUG, CONNECTOR 3P			
CN501	1-770-706-11	CONNECTOR, FFC/FPC 23P			
CN503	1-779-416-11	CONNECTOR,FFC(LIF(NON-ZIF))13P			
		< TRIMMER >			
CT503	1-141-539-11	CAP, ADJ 10PF			
		< DIODE >			
D301	8-719-054-23	DIODE RB706D-40-T146			
D501	8-719-422-12	DIODE MA8039			

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description	Remark
D502	8-719-018-51	DIODE CL-170R-CD	
		< IC >	
IC101	8-759-701-39	IC NJM3404AM	
IC401	8-759-262-00	IC MC14576CF	
IC501	8-759-269-92	IC SN74HCU04ANS-E20	
IC502	8-759-587-67	IC M30620MC-A05FP	
IC504	8-759-269-92	IC SN74HCU04ANS-E20	
IC505	8-759-535-48	IC CL680T-D1	
IC506	8-759-573-23	IC LC372100PM-J48-TLA	
IC507	8-759-342-01	IC MB814260-70PJER	
IC509	8-759-535-62	IC PCM1727E-2/T2	
		< JACK >	
J301	1-537-943-11	TERMINAL, S (S VIDEO OUT)	
		< JUMPER RESISTOR >	
JW101	1-216-295-91	SHORT 0	
JW201	1-216-295-91	SHORT 0	
JW401	1-216-295-91	SHORT 0	
JW402	1-216-295-91	SHORT 0	
JW403	1-216-295-91	SHORT 0	
JW404	1-216-295-91	SHORT 0	
JW405	1-216-295-91	SHORT 0	
JW413	1-216-295-91	SHORT 0	
JW421	1-216-295-91	SHORT 0	
JW422	1-216-295-91	SHORT 0	
JW502	1-216-295-91	SHORT 0	
JW503	1-216-295-91	SHORT 0	
JW504	1-216-295-91	SHORT 0	
JW505	1-216-295-91	SHORT 0	
		< COIL >	
L301	1-410-372-21	INDUCTOR CHIP 1.8uH	
L302	1-410-372-21	INDUCTOR CHIP 1.8uH	
L501	1-216-296-91	SHORT 0	
L502	1-216-296-91	SHORT 0	
L503	1-216-296-91	SHORT 0	
L504	1-410-375-11	INDUCTOR CHIP 3.3uH	
L505	1-216-296-91	SHORT 0	
L506	1-216-296-91	SHORT 0	
L507	1-216-296-91	SHORT 0	
L508	1-216-296-91	SHORT 0	
L509	1-216-296-91	SHORT 0	
L510	1-216-296-91	SHORT 0	
		< TRANSISTOR >	
Q301	8-729-024-91	TRANSISTOR 2SC2712-GL-TE85L	
Q302	8-729-024-91	TRANSISTOR 2SC2712-GL-TE85L	
Q303	8-729-024-91	TRANSISTOR 2SC2712-GL-TE85L	
Q304	8-729-024-91	TRANSISTOR 2SC2712-GL-TE85L	
Q306	8-729-027-44	TRANSISTOR DTC114TKA-T146	
Q307	8-729-024-91	TRANSISTOR 2SC2712-GL-TE85L	
Q308	8-729-024-91	TRANSISTOR 2SC2712-GL-TE85L	
Q310	8-729-024-91	TRANSISTOR 2SC2712-GL-TE85L	
Q453	8-729-920-72	TRANSISTOR 2SA1037K-T-146-QR	
Q454	8-729-920-72	TRANSISTOR 2SA1037K-T-146-QR	

Ref. No.	Part No.	Description	Remark
Q502	8-729-024-91	TRANSISTOR 2SC2712-GL-TE85L	
Q531	8-729-140-75	TRANSISTOR 2SD999-CLCK	
		< RESISTOR >	
R101	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R102	1-208-441-61	RES,CHIP 1.5K 2% 1/10W	
R103	1-208-441-61	RES,CHIP 1.5K 2% 1/10W	
R105	1-216-295-91	SHORT 0	
R201	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R202	1-208-441-61	RES,CHIP 1.5K 2% 1/10W	
R203	1-208-441-61	RES,CHIP 1.5K 2% 1/10W	
R205	1-216-295-91	SHORT 0	
R301	1-216-624-11	METAL CHIP 75 0.5% 1/10W	
R302	1-216-624-11	METAL CHIP 75 0.5% 1/10W	
R305	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R306	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R307	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R308	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R309	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R312	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R313	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R314	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R315	1-216-047-91	RES,CHIP 820 5% 1/10W	
R316	1-216-657-11	METAL CHIP 1.8K 0.5% 1/10W	
R317	1-216-683-11	METAL CHIP 22K 0.5% 1/10W	
R318	1-216-033-00	METAL CHIP 220 5% 1/10W	
R319	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R320	1-216-651-11	METAL CHIP 1K 0.5% 1/10W	
R321	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R324	1-216-022-00	METAL CHIP 75 5% 1/10W	
R325	1-216-295-91	SHORT 0	
R327	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R328	1-216-655-11	METAL CHIP 1.5K 0.5% 1/10W	
R329	1-216-649-11	METAL CHIP 820 0.5% 1/10W	
R332	1-216-651-11	METAL CHIP 1K 0.5% 1/10W	
R333	1-216-046-00	METAL CHIP 750 5% 1/10W	
R335	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R336	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R340	1-216-022-00	METAL CHIP 75 5% 1/10W	
R341	1-216-121-91	RES,CHIP 1M 5% 1/10W	
R342	1-216-022-00	METAL CHIP 75 5% 1/10W	
R403	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R404	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R405	1-216-065-91	RES,CHIP 4.7K 5% 1/10W	
R406	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R407	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R408	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R409	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R410	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R411	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R412	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R414	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R415	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R423	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R424	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R425	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R426	1-216-073-00	METAL CHIP 10K 5% 1/10W	

VIDEO

Ref. No.	Part No.	Description			Remark
R457	1-216-025-91	RES,CHIP	100	5%	1/10W
R458	1-216-025-91	RES,CHIP	100	5%	1/10W
R459	1-216-025-91	RES,CHIP	100	5%	1/10W
R461	1-216-025-91	RES,CHIP	100	5%	1/10W
R462	1-216-025-91	RES,CHIP	100	5%	1/10W
R463	1-216-025-91	RES,CHIP	100	5%	1/10W
R464	1-216-025-91	RES,CHIP	100	5%	1/10W
R501	1-216-025-91	RES,CHIP	100	5%	1/10W
R502	1-216-025-91	RES,CHIP	100	5%	1/10W
R503	1-216-025-91	RES,CHIP	100	5%	1/10W
R504	1-216-025-91	RES,CHIP	100	5%	1/10W
R505	1-216-025-91	RES,CHIP	100	5%	1/10W
R506	1-216-025-91	RES,CHIP	100	5%	1/10W
R507	1-216-073-00	METAL CHIP	10K	5%	1/10W
R508	1-216-081-00	METAL CHIP	22K	5%	1/10W
R509	1-216-081-00	METAL CHIP	22K	5%	1/10W
R510	1-216-081-00	METAL CHIP	22K	5%	1/10W
R511	1-216-081-00	METAL CHIP	22K	5%	1/10W
R512	1-216-081-00	METAL CHIP	22K	5%	1/10W
R513	1-216-081-00	METAL CHIP	22K	5%	1/10W
R514	1-216-081-00	METAL CHIP	22K	5%	1/10W
R516	1-216-073-00	METAL CHIP	10K	5%	1/10W
R517	1-216-073-00	METAL CHIP	10K	5%	1/10W
R518	1-216-073-00	METAL CHIP	10K	5%	1/10W
R519	1-216-025-91	RES,CHIP	100	5%	1/10W
R520	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R523	1-216-013-00	METAL CHIP	33	5%	1/10W
R530	1-216-081-00	METAL CHIP	22K	5%	1/10W
R531	1-216-025-91	RES,CHIP	100	5%	1/10W
R532	1-216-025-91	RES,CHIP	100	5%	1/10W
R533	1-216-025-91	RES,CHIP	100	5%	1/10W
R534	1-216-073-00	METAL CHIP	10K	5%	1/10W
R535	1-216-073-00	METAL CHIP	10K	5%	1/10W
R536	1-216-033-00	METAL CHIP	220	5%	1/10W
R537	1-216-025-91	RES,CHIP	100	5%	1/10W
R538	1-216-073-00	METAL CHIP	10K	5%	1/10W
R542	1-216-049-91	RES,CHIP	1K	5%	1/10W
R543	1-216-685-11	METAL CHIP	27K	0.5%	1/10W
R544	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R545	1-216-025-91	RES,CHIP	100	5%	1/10W
R546	1-216-049-91	RES,CHIP	1K	5%	1/10W
R547	1-216-295-91	SHORT	0		
R548	1-216-049-91	RES,CHIP	1K	5%	1/10W
R549	1-216-025-91	RES,CHIP	100	5%	1/10W
R550	1-216-025-91	RES,CHIP	100	5%	1/10W
R551	1-216-025-91	RES,CHIP	100	5%	1/10W
R552	1-216-025-91	RES,CHIP	100	5%	1/10W
R554	1-216-025-91	RES,CHIP	100	5%	1/10W
R555	1-216-121-91	RES,CHIP	1M	5%	1/10W
R556	1-216-025-91	RES,CHIP	100	5%	1/10W
R557	1-216-025-91	RES,CHIP	100	5%	1/10W
R558	1-216-073-00	METAL CHIP	10K	5%	1/10W
R559	1-216-073-00	METAL CHIP	10K	5%	1/10W
R560	1-216-051-00	METAL CHIP	1.2K	5%	1/10W
R561	1-216-049-91	RES,CHIP	1K	5%	1/10W
R562	1-216-025-91	RES,CHIP	100	5%	1/10W
R563	1-216-025-91	RES,CHIP	100	5%	1/10W
R564	1-216-025-91	RES,CHIP	100	5%	1/10W
R565	1-216-025-91	RES,CHIP	100	5%	1/10W
R566	1-216-025-91	RES,CHIP	100	5%	1/10W
R567	1-216-073-00	METAL CHIP	10K	5%	1/10W
R568	1-216-073-00	METAL CHIP	10K	5%	1/10W
R569	1-216-073-00	METAL CHIP	10K	5%	1/10W
R572	1-216-073-00	METAL CHIP	10K	5%	1/10W
R573	1-216-073-00	METAL CHIP	10K	5%	1/10W
R574	1-216-073-00	METAL CHIP	10K	5%	1/10W
R577	1-216-081-00	METAL CHIP	22K	5%	1/10W
R578	1-216-081-00	METAL CHIP	22K	5%	1/10W
R579	1-216-073-00	METAL CHIP	10K	5%	1/10W
R580	1-216-073-00	METAL CHIP	10K	5%	1/10W

< SWITCH >

S501	1-571-395-11	SWITCH, SLIDE (SYSTEM SELECT NTSC ⏮ AUTO ⏭ PAL)

< VIBRATOR >

X501	1-767-510-11	VIBRATOR, CERAMIC (10MHz)
X503	1-767-519-11	VIBRATOR, CRYSTAL (27MHz)

****

MISCELLANEOUS
****

1	1-769-977-11	WIRE (FLAT TYPE) (13 CORE)
5	1-693-420-12	TUNER UNIT (FM/AM)
61	1-773-002-11	WIRE (FLAT TYPE) (15 CORE)(80mm)
62	1-773-034-11	WIRE (FLAT TYPE) (15 CORE)(420mm)
152	1-569-007-11	ADAPTOR, CONVERSION 2P (IA)
152	1-569-008-21	ADAPTOR, CONVERSION 2P (EXCEPT IA)
156	1-790-660-11	WIRE (FLAT TYPE) (23 CORE)
158	1-790-288-11	WIRE (FLAT TYPE) (13 CORE)
160	1-773-006-11	WIRE (FLAT TYPE) (15 CORE)
161	1-773-056-11	WIRE (FLAT TYPE) (17 CORE)
507	1-452-925-21	MAGNET ASSY
⚠601	8-820-020-02	OPTICAL PICK-UP KSS-213D/Q-NP
602	1-769-069-11	WIRE (FLAT TYPE) (16 CORE)
⚠CNP901	1-558-943-41	CORD, POWER (IA)
⚠CNP901	1-575-651-21	CORD, POWER (EXCEPT IA)
FL601	1-517-839-11	INDICATOR TUBE, FLUORESCENT (VR70)
FL601	1-517-840-11	INDICATOR TUBE, FLUORESCENT (VR50)
HP101	A-2056-681-B	DECK (A) ASSY, HEAD (230AWR2)
HP101	A-2056-683-B	DECK (A) ASSY, HEAD (230PWR2)
HRPE101	A-2056-682-B	DECK (B) ASSY, HEAD (230AWR2)
HRPE101	A-2056-684-B	DECK (B) ASSY, HEAD (230PWR2)
M1	A-2004-628-A	MOTOR ASSY, CAPSTAN
M101	X-4917-523-4	MOTOR ASSY (SPINDLE)
M102	X-4917-504-1	MOTOR ASSY (SLED)
M201	A-4660-977-A	MOTOR ASSY (TABLE)
M901	1-698-792-11	FAN, DC (VR50)
M901	1-763-072-11	FAN, DC (VR70)
⚠T951	1-433-604-11	TRANSFORMER, POWER (VR50)
⚠T951	1-433-606-11	TRANSFORMER, POWER (VR70)

****

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description	Remark
		ACCESSORIES & PACKING MATERIALS	
		**********	
	1-418-244-21	COMMANDER, STANDARD (RM-SV66B)	
	1-501-374-11	ANNTENA, LOOP	
	1-501-659-41	ANTENNA (FM)	
	4-983-536-11	COVER, BATTERY (FOR RM-SV66B)	
	3-865-554-11	MANUAL, INSTRUCTION (ENGLISH)	
	3-865-554-21	MANUAL, INSTRUCTION (FRENCH)(EA)	
	3-865-554-31	MANUAL, INSTRUCTION (FRENCH,SPANISH)(SP,MY)	
	3-865-554-41	MANUAL, INSTRUCTION (CHINESE)(EXCEPT IA)	
	3-865-554-51	MANUAL, INSTRUCTION (ARABIC)(EA)	

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****
HARDWARE LIST
****

#1	7-685-871-01	SCREW +BVTT 3X6 (S)	
#2	7-685-872-09	SCREW +BVTT 3X8 (S)	
#3	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
#4	7-685-534-19	SCREW +BTP 2.6X8 TYPE2 N-S	
#5	7-685-533-19	SCREW +BTP 2.6X6 TYPE2 N-S	
#6	7-685-104-19	TPG +P 2X6 TYPE2 NON-SLIT	
#7	7-685-650-79	SCREW +BVTP 3X16 TYPE2 IT-3	
#8	7-685-881-09	SCREW +BVTT 4X8 (S)	
#9	7-685-853-04	SCREW +BVTT 2X6 (S)	
#11	7-685-851-04	SCREW +BVTT 2X4 (S)	
#12	7-628-254-15	SCREW +PS 2.6X6	
#13	7-628-254-50	SCREW +PS 2.6X16	

9-928-915-11

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Home Audio Company

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